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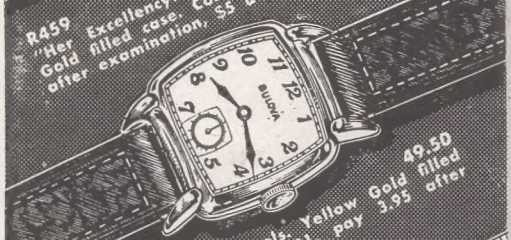

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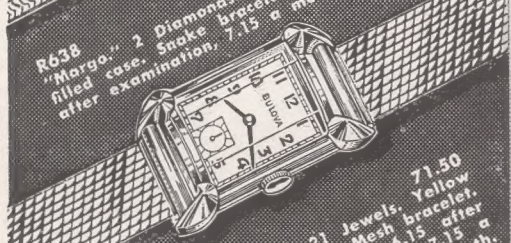

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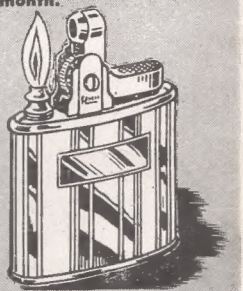

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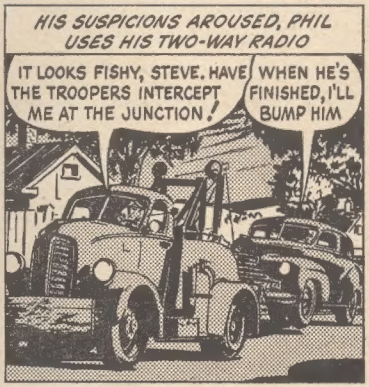
HIS SUSPICIONS AROUSED, PHIL USES HIS TWO-WAY RADIO
IT LOOKS FISHY, STEVE. HAVE THE TROOPERS INTERCEPT ME AT THE JUNCTION!
WHEN HE'S FINISHED, I'LL BUMP HIM

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THIS TELETYPE WILL BRING PHOTOGRAPHERS HERE IN DROVES
H-MMM... I'D BETTER CLEAN UP

YOU'RE OKAY IN MY BOOK, SON. I'M COUNTING ON SEEING YOU TOMORROW
THAT MEANS A SWELL JOB FOR MILLS, OR I DON'T KNOW THE OLD MAN
HOUR LATER

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RAILROAD

MAGAZINE

Originally Railroad Man's Magazine, founded 1906

November, 1948 Vol. 47, No. 2 35 Cents

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By Frederick Blakeslee

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Oldest Railroad Trainman

By JAMES F. WOLFE

WITH most railroad men, seniority is important. But when Julius L. Marquette, 84-year-old Alton conductor, was honored in February of 1947 for his sixty-two years with the line he did not bother to mention that he isn't completely a home guard rail, that before he joined the Alton he worked five years on the C&NW.

Mr. Marquette's rail career spans the transition from wood-burners to fast streamliners. And he is not even thinking of retiring.

JULIUS L. MARQUETTE

About seventy-five persons were waiting at track 27 of Kansas City's Union Station when Marquette brought the streamlined *General Pershing** in at 5:35 p.m.—on the advertised to a second. Most of the men present were employes of the Alton and the Kansas City Terminal Railway. Others were members of his family.

Marquette was puzzled. "What's the matter?" he asked. "What's wrong?"

His wife, Mrs. Georgiana Marquette, stepped forward. She believed that the brown felt hat her husband was wearing wasn't quite right for a railroad fete. She removed it and placed his conductor's cap on his head.

Then L. L. Lapp, executive general agent for the GM&O, which recently took over the Alton, tore open a telegram and read a message to Marquette from G. P. Brock, vice-president and general manager of the GM&O, congratulating him for his long service.

L. H. Nugent, division passenger agent for the Alton, stepped forward with James F. Brown, city passenger agent. Brown passed two dozen red roses to Kearney Wornall, president of the Kansas City chamber of commerce, who presented them to the conductor.

"Well, well," Wornall said in his best C. of C. manner. "Sixty-two years on the railroad and still active. How old did they say you are? Eighty-four?"

"Yes, sir," Marquette replied as he pumped back on the chamber president's hand.

"You don't look it," Wornall said.

"I don't feel it either," Marquette told him. "I feel fine. I hope nobody has got the idea that I'm going to retire."

A moment later William E. Rogers, sixty-seven, of 10107 East 18th St., Kansas City, shook his hand. Rogers was an Alton callboy at Roodhouse, Illinois, as a youth and used to summon Marquette to work. Rogers accompanied the conductor to the telegraph room on the third floor of the massive station where Alton conductors sign in their trains.

In the telegraph room, Marquette inadvertently let slip a remark about wood-burning engines out of Baraboo, Wisconsin, the old Ringling circus headquarters.

Wayne Hanley, a reporter for *The Kansas City Times* and a former railroad man himself, knew that Baraboo isn't on the Alton iron.

"Then you didn't work all sixty-two years on the Alton?" he asked.

"Oh, yes, sixty-two years on the Alton," Marquette replied. "That was the Chicago

(Continued on page 8)

*The General Pershing Zephyr is a Burlington train using Alton tracks from Kansas City to near Mexico, Mo. The Alton furnishes some of the crewmen.

It takes $20,265

to keep a man working on the railroad

Yes, that's what it costs the railroads to provide each and every one of their 1,350,000 workers with the "tools" of his trade.

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Railroads are being continually improved. More powerful locomotives, freight cars of increased capacity, luxurious streamlined passenger trains, heavier rail, reduction of curves and grades, new signals that increase safety and efficiency—all are being added as fast as the materials needed to build them become available.

To continue to improve America's greatest mass transportation system, the railroads should be allowed to earn enough to supply their workers with even more productive "tools." Only in this way—combining the resources created by the pooled and invested savings of millions of persons with the skill of railroad men and management—will the railroads be able to keep on furnishing the low-cost transportation that is essential to the life of the nation.

ASSOCIATION OF AMERICAN RAILROADS

WASHINGTON 6, D. C.

& North Western up at Baraboo. I worked for it five years."

"Then you have sixty-seven years of active railroad service?"

"Yes."

Hanley asked him why he had not told the greeting committee, already awed by a 62-year record, of the extra five years.

"Well," the conductor said, "there was quite a crowd down there and everything. Besides, it's only five years' difference. Most folks don't know I worked for the C&NW. I never mention it."

Marquette said he was surprised by the celebration because his sixty-second year with the Alton didn't expire until Feb. 22nd. "I'll never retire as long as I can pass a physical," he said.

Nugent says he won't have to. "He passes every examination in grand style," the passenger agent said. "His eyes, heart and hearing are all okay. As long as he can pass the physical and wants to keep working, it's all right."

Nugent said that "J. L." is the oldest railroad man on the Alton, both in age and service. Marquette says he is the oldest active road serviceman in the United States. No one has successfully contradicted him.

Rogers, who retired February 4 after forty-six years of service and who braked for Marquette fifteen years, has a different point of view.

"If the business was like it used to be, I'd probably still be working," he said. "In the old days we stopped at every station and I knew most of the passengers. You could just about tell who would get off and who would get on at every stop.

"You had time enough to get acquainted with the folks around the depots. When I'd get off, it'd be 'Billy this' and 'Billy that.' A farmer would come up and say 'Billy, I've got some quail on my place. Come on over hunting next time you get a chance.'

"Things aren't like that any more. These streamlined trains zip along and don't stop at a small town. You don't know the passengers and they don't want to know you. It's like hauling merchandise.

"Nope, the human element is gone out of railroading, like everything else. Since a railroad man can retire on a pension at sixty-five, I didn't see the use of going on after the war ended."

When Marquette started as a brakeman at Baraboo in 1880, he made the run between Baraboo and Winona, Wisconsin—225 miles in from fifteen to twenty hours. He is a charter member of the Altoona, Wisconsin, local of the B. of R. T., chartered in 1884. From 1916 to 1930 he was division superintendent in charge of operations between Bloomington, Illinois, and Kansas City. He formerly lived in Slater, Missouri.

His first wife, Mrs. Lillian Marquette, died in 1925. In 1927 he married her sister, a widow.

Present to meet him at the station were two of his three sons and Mrs. Marquette's son. They are Harry Marquette, Alton roundhouse foreman at Mexico, Missouri; Fred Marquette, a carpenter who lives at the home, 3441 Benton, Kansas City, and Francis Cowling, a towerman for the KC Terminal. His other son, Earl Marquette, is Alton district passenger agent at San Antonio, Tex.

Marquette and his wife said they were going to Florida for a three-week visit with his sister in St. Petersburg. A layoff, yes. But retire—No!

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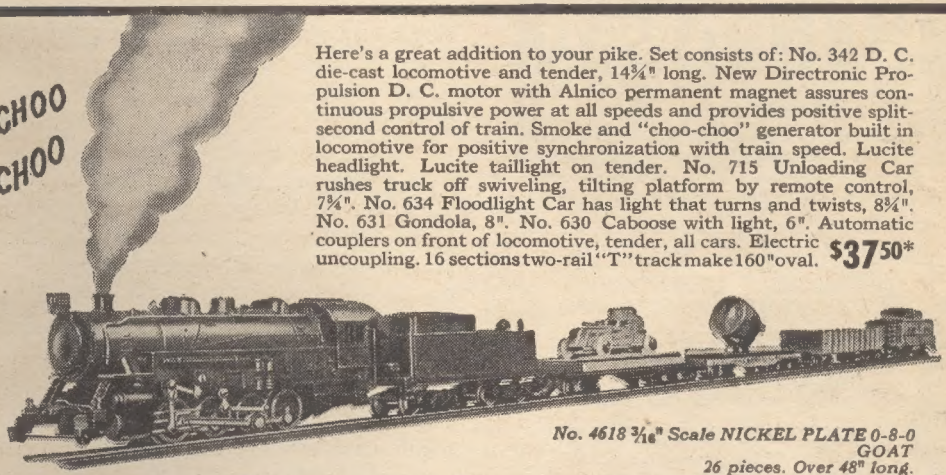

Here's a great addition to your pike. Set consists of: No. 342 D. C. die-cast locomotive and tender, 14¾" long. New Directronic Propulsion D. C. motor with Alnico permanent magnet assures continuous propulsive power at all speeds and provides positive split-second control of train. Smoke and "choo-choo" generator built in locomotive for positive synchronization with train speed. Lucite headlight. Lucite taillight on tender. No. 715 Unloading Car rushes truck off swiveling, tilting platform by remote control, 7¾". No. 634 Floodlight Car has light that turns and twists, 8¾". No. 631 Gondola, 8". No. 630 Caboose with light, 6". Automatic couplers on front of locomotive, tender, all cars. Electric uncoupling. 16 sections two-rail "T" track make 160" oval. **$37.50***

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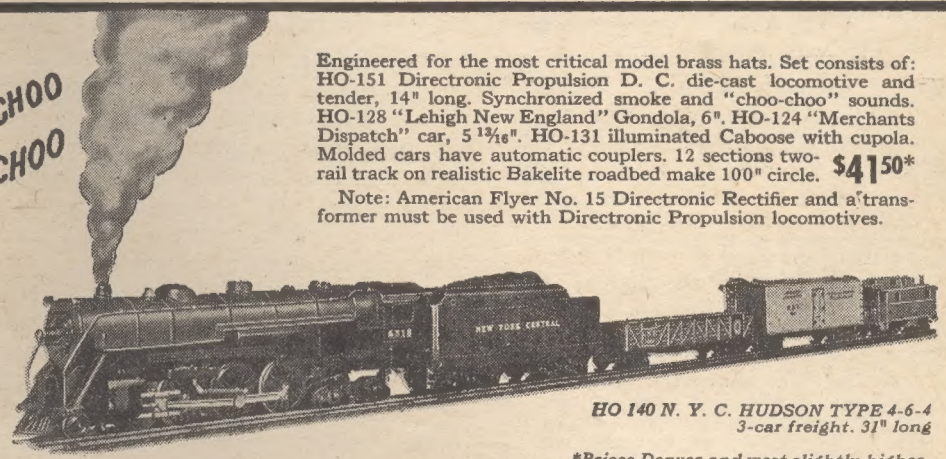

Engineered for the most critical model brass hats. Set consists of: HO-151 Directronic Propulsion D. C. die-cast locomotive and tender, 14" long. Synchronized smoke and "choo-choo" sounds. HO-128 "Lehigh New England" Gondola, 6". HO-124 "Merchants Dispatch" car, 5 13/16". HO-131 illuminated Caboose with cupola. Molded cars have automatic couplers. 12 sections two-rail track on realistic Bakelite roadbed make 100" circle. **$41.50***

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Puzzle Switches

(If they derail you, turn the Magazine)

RECENTLY one coach of a transcontinental train was derailed on a long stretch of single track. Just the trucks on the B-end were off the track; but when the hook arrived, it found itself on the A-end of the coach—the wrong end to do any direct lifting on the derailed truck.

Since the derailment occurred on a single track and the cost of running the crane around the coach over another road's track was prohibitive, the wrecking engineer considered the hook useless on this job. So the gang set to work with jacks and finally rerailed the coach after ten back-breaking hours of labor. One oldtimer at this work stated flatly that, if he were in charge of the job, he would make the hook do all the work. Furthermore, he would have had the coach rerailed in less than two hours!

Put yourself in the wrecking foreman's place. Would you have known how to use the crane correctly? Remember, the crane is on the wrong end of the coach for a direct lift on the derailed truck.

* * *

Solution: The way the oldtimer handled this job makes it simple. First, he would chain the derailed truck to the car and block that end of the coach securely. Then he would use the crane to lift the A-end high, pull the truck out from under it, and build a strong fulcrum of ties or blocks under the coach past the center-line and as near the derailed truck as possible. Using the fulcrum carefully, he would lower the A-end of the coach. The weight of the coach would lift the chained-up trucks clear. Then the coach could be swung until the wheels were in place over the rails, when another lift on the A-end would set them down on the rails.

With this truck back on the rails, the A-end would be raised high enough to remove the fulcrum, run the other truck back into place and lower the car. The coach would then be ready for service.

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ONLY 25¢ POSTPAID

Puzzle Switches

A CONDUCTOR on a freight, being a careless sort of fellow, tore a whole stack of waybills in half. Ordinarily, he'd have had no trouble in putting them back together. But because each point of consignment was made up of two common words, joined to form a name, he became hopelessly confused.

Can you help him out of his trouble? Just take a word from the left column and add it to the correct one from the right column to form the name of a well-known American city.

1. CAN	A. OR, *ME.*
2. ELK	B. TON, *Ohio*
3. NEW	C. ANY, *New York*
4. PORT	D. FORD, *Conn.*
5. BANG	E. DEN, *New Jersey*
6. ALB	F. HART, *Indiana*
7. FAR	G. LAND, *Maine*
8. CAM	H. OKE, *Mass.*
9. HART	I. FOLK, *Va.*
10. LOW	J. GO, *N. D.*
11. NOR	K. ARK, *N. J.*
12. HOLY	L. ELL, *Mass.*

* * *

Answers: 1-B; 2-F; 3-K; 4-G; 5-A; 6-C; 7-J; 8-E; 9D; 10-L; 11-I; 12-H.

FOR the mathematically inclined: *Work on this problem with watch in hand, your time starting when you begin to read the paragraph below. If you reach the solution in 2 minutes or less, you are superior; under 3 minutes is good.*

The Problem: You are the engineer on a special cattle train headed for the meat-hungry East, making a non-stop run from Butte, Montana, to Chicago. All other traffic on the line has orders to sidetrack for the precious beef. At the precise instant that the train leaves Butte, an inquisitive hummingbird named Ferdinand leaves Chicago, flying to meet it. Ferdinand maintains a constant speed of 116.2 mph. If he meets the train, turns around and flies back to Chicago, having been gone 9.4 hours, what is the engineer's name?

* * *

Answer: Your name.

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Homeward bound, the *City of Memphis* streaks over new fill near Bruceton, Tenn.

Chattanooga Choo Choos —and Diesels

THE SOUTH'S RAILROADS are undergoing the greatest roadbed relocation and rehabilitation of track the nation has even seen. During the past four years millions of dollars have been spent by the Atlantic Coast Line, the Nashville, Chattanooga & St. Louis and the Louisville & Nashville in building high-speed tracks. And many millions more are to be appropriated for eliminating curves, reducing grades and building structures to accommodate larger power and speeds ranging from seventy to ninety miles an hour.

Three years ago, when the huge job of track straightening, grade reducing and bridge building was getting under way on the NC&StL's Western & Atlantic, probably the crookedest 136 miles of mainline steel in America but the most valuable property owned by the State of Georgia, I rode an engine of the *Dixie Flyer* with Bob Squires to get an idea of what this task meant to the railroad and the State. Chief Dispatcher Bob Cox pointed out track changes between Atlanta and Chattanooga and I was amazed by the number of bridges to be built and the millions of cubic yards of dirt and rock to be removed in straightening the track.

In many places grading crews could be seen hundreds of feet from the right-of-way; at other locations the rails were nearly a mile away. Cox explained that

Subsidiary Line? Maybe; but NC&StL Operates with Mountain Independence—and Lets the W&A Do the Same

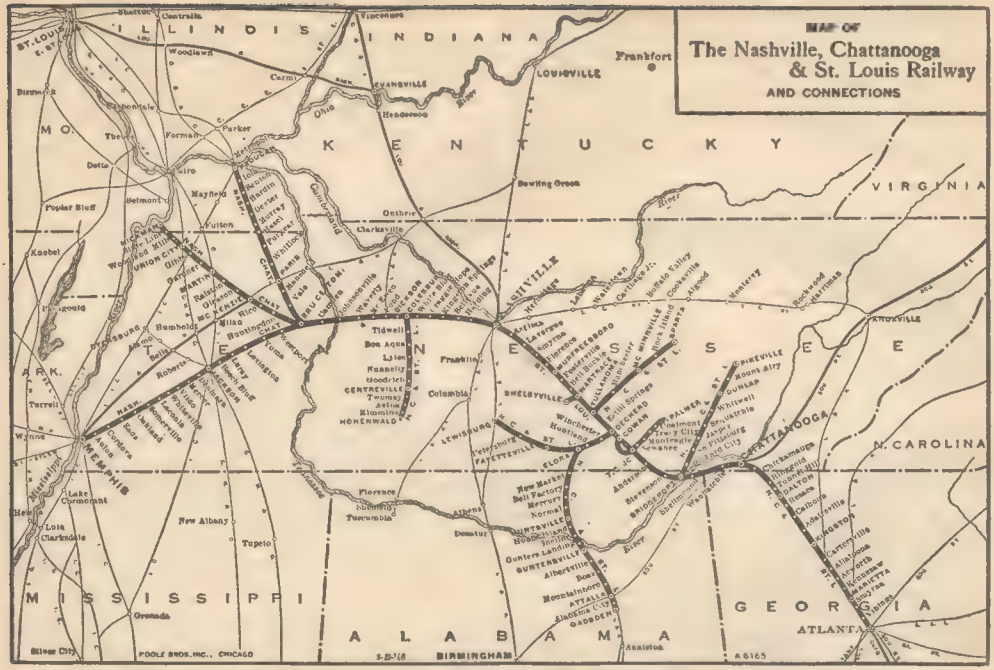
By H. G. MONROE

stronger structures were needed to accommodate the fleet of twenty huge 4-8-4s contemplated for service on fast freight and passenger runs between Nashville and Atlanta. These first Baldwins were known as gliders; they now sport a narrow streak on their running boards to differentiate them from the "Yellow Jackets," a later bunch of ballbearing 4-8-4s, which carry a deeper yellow band and run between Chattanooga and Nashville.

I knew that much had been accomplished since that morning, but how near the large program was to completion I had no idea until I rode the *Train of Tomorrow* from Manchester to Atlanta, Ga. W. A. Swindell, superintendent of the NC&StL's Atlanta Division, the old W&A, greeted me as I came aboard with the suggestion that I make a trip to Chattanooga and "see what we've done to the old W&A. The CTC is operating all the way to Nashville and Bruceton and we're running over the new track."

It is strictly against the bible for anyone to ride an engine over "Grandpa's Railroad"—the W&A is called that because of the large number of kinfolk it employs—but W. J. McWhorter, the Georgia boy who a few years ago was appointed general manager of the NC&StL, sent me a permit to ride the Diesel of the new streamlined *Georgian* to Nashville. The return trip was to be made on one of the Yellow Jackets.

So on a warm morning in August a year ago I stood near the *Georgian's* Diesel engine Number 781 while it was being washed for the long run to St.



"And connections" means the IC, CB&Q, Southern and L&N—mostly L&N, which surrounds the seven-lashed whip that forms NC&StL trackage with innumerable curls of feeder lines. Around and across these tracings lie the curving pattern made by still older connections—the Cumberland, the Tennessee, the Ohio and, southwest, below Paducah and Hickman, the Mississippi at Memphis

Louis, and waited for Bob Cox who was to ride with me again. A tall slender overall-clad man came leisurely down the blue-banded stainless steel coach train. It was A. C. (Fred) Mayers, the oldest engineer on the Atlanta Division. Superintendent Swindell had told me about him the day before.

"I was trainmaster under Mr. Hibbert, now retired," Mr. Swindell said, "when we received instructions that two cars in which Omaha meat packers were trying out dry ice refrigeration would be on the M-5, our hotshot connection leaving Nashville ahead of the *Dixie Flyer*. The packers would ride the *Flyer* and inspect the meat in Atlanta and Macon and we'd have to see that the inspection could be made in Atlanta while the *Flyer* was being switched at the station there.

"Our plans went haywire when some delay above Chattanooga got the meat behind the *Flyer*. The packers had made hotel reservations in Macon and were frothing at the mouth. 'For God's sake get those meat cars to Atlanta in time!' the general manager's message read.

"The main line from Nashville passes through the Cravens Yard in Chattanooga and I sent a message to the Chattanooga Division trainmaster to let the M-5 come down the main line for inspection and change of engines. Fred Mayers stood for the run out of Chattanooga. He had one of our Mountain types, the largest engines in service at that time. Fred pulled out of Cravens fifteen minutes after 95 left the Union Station. It must have been a shame the way he rolled boxcars over that crooked track—and remember there were 322 curves back in those days. He stopped at Kingston for a little water and coal and then lit out again.

"We stopped the *Flyer* at the south end of the yards and let the men off for the inspection. Fred had a message to come up the freight main and stop at the hump. The packers had hardly gotten off the train when we heard Fred coming up the hill, that Mountain type thundering to

heaven from the unmerciful beating she was getting.

"'Good Lord!' one of the packers gasped, 'that fellow's not going to stop!'

"But he was wrong. Fred set those cars right down beside us. The meat was inspected and the packers were loaded into a waiting auto for a record run to the station. They were back in their Pullman without a moment's delay to 95. Fred's running time? Three hours and fifteen minutes for the 136 miles!"

I WATCHED Mayers with respect as he climbed into the Diesel. The streamlined coach train, which was put on the rails in the summer of '47, makes the run to Chattanooga in two hours and fifty-five minutes despite portions of new track still bridled with slow orders. And the 151.71 miles between Chattanooga and Nashville is stepped off in three hours flat, making the running time for the 287.71 miles from Atlanta six hours. This time will be reduced further when the program has been completed.

Bob Cox came hurrying toward me. "This is one train that leaves on time," he called, "and we'd better be getting up there if we don't wanna get left!" I climbed up into the Diesel behind Bob, and was surprised to see my old friend, J. B. Raven, who used to work in the mailing room of the *Atlanta Journal*. He'd quit the newspaper racket to take up a scoop twenty-one years ago. "Take my seat," he grinned in recognition.

Since the CTC was cut in the only orders we received were several slow orders. One of them was for a 20-mile bridle across a new bridge over the Chattahoochee River, a fraction over seven miles north of the station. An L&N coal drag dropping down the hill from Smyrna in the wee hours before dawn that morning was involved in one of those believe-it-or-not accidents. "I'll tell you about it when we get there," Bob said, as the cab signal sounded twice. My watch read exactly 8:30, leaving time for the *Georgian*.

"That L&N outfit had a rabbit's foot," Fred casually joined the conversation as he notched the Diesel's throttle to start the non-stop run to Chattanooga. "I don't see what kept them from damming up the Chattahoochee!"

We glided through the curves, almost one continuous wave to Bolton, where Fred slowed the throbbing engines to reduce speed to the bridle at the river bridge. The double track ended at the depot. We had a clear block and Fred was braking smoothly as we entered the single track.

"This is all new steel," Bob remarked. "Last year we laid 131-pound rail in all curves and 120 on the straightaways." He rose from his stool as we crept toward the bridge. "Look," he pointed to the left-hand rail a hundred or so yards away,

Thirty curves in seven miles may be eliminated by using this old military map showing route of retreat followed by Gen. Jos. E. Johnston. Original is dated May, 1864

"that's where the L&N truck rerailed itself."

Flange marks veered to the left of the rails in a graceful arc to where the right-hand wheels had hit the center of the badly splintered ties. From there the marks held a straight line across the steel-girdered bridge, following the curvature of the rails through a series of reverse curves to a point nearly one mile from the spot of rerailment, where the truck had dropped to the ties.

"The crew never knew the derailment had happened," Bob explained, "and three trains passed over the track before we knew of the accident. The inspectors in the yards found a broken journal box, and daylight showed the damage to the track. I heard that 1,560 new ties will be required to replace the damaged ones. I can't understand how those drawheads held, or how the wheels were rerailed on straight track."

We passed over the derailment point and I watched the Diesel pick up on the long river hill where the track is composed of a series of reverse curves, leading one to another, with no tangent exceeding a stone's throw.

As might be expected, the degree of curvature varies, but none of the sweeping bends exceed six degrees and most of them are three and four degrees. We were doing 48 at the station board south of Vinings, less than two miles from where Fred resumed speed, and the needle climbed to 50 going into the little hamlet nestling in the rough foothills of the long leg of the Blue Ridge.

Outside of broadening fills and cuts and laying 131-pound steel, this part of the railroad remains as Colonel Long surveyed it back in 1837; and the engineering department in Nashville told me that little could be done about the curvature from the Chattahoochee River. Colonel Long swung his track along ridges, avoiding as far as possible wide valleys and gorges which would require bridging or filling, and no better route has since been found to Marietta, 20.13 miles from Atlanta.

"The hardest pull is in the reverse curve just north of the depot," Fireman Raven said as we swung through a double bender north of the Vinings depot. The speed held to 50. "The best we can do with the Yellow Jackets is 40 to 45 miles an hour."

A few moments later we were pulling into the south sidetrack at Smyrna. "We're meeting 93, the southbound *Dixie Limited,*" Raven explained, going to the engineer's door. "My kid brother is supposed to be firing one of the Yellow Jackets on it, and I want to wave to him." I saw a young fellow smile and lift a hand in salute from the passing 4-8-4.

I checked my watch. Our running time for the fifteen miles to Smyrna, about half of them 7/10ths of one percent grade, was 26 minutes, including the time lost by the slow order and heading through the sidetrack.

We left the blacksnake track at Smyrna, but continued to climb through seven curves to a point 2½ miles out of Marietta, where the track staggered through thirteen curves to enter the town in a dip of rails. Fred cut the engines to go through the little city. Marietta is famous for the B-29s which rolled out of the Bell Aircraft plant on her eastern outskirts, and as the site where Andrews and his twenty raiders spent the night before boarding the *General's* train. But the engines idled only briefly, for two miles of stiff, curving track led to the crest of the grade beyond.

Kennesaw Mountain, where Sherman sacrificed thousands of men in an effort to dislodge entrenched Confederates from its steep slopes, reared its head to our left, the track swinging to the right for a four-mile drop on serpentine track to Noonday Creek, the bottom of the stiff two-mile hill to Kennesaw. There are something like thirty curves in the seven miles from Marietta to Kennesaw. Senior Engineer Otto Joslin believes he knows a way to eliminate this stretch of crooked steel. He believes that Joe Johnston, who fought and outfoxed Sherman all through this region had the answer back in 1864.

The blue-and-gray ***Georgian*** was placed in new service June 1st, cutting one hour, fifty minutes from the L&N's old St. Louis-Atlanta schedule. The massive Etowah River bridge above was completed early in 1947

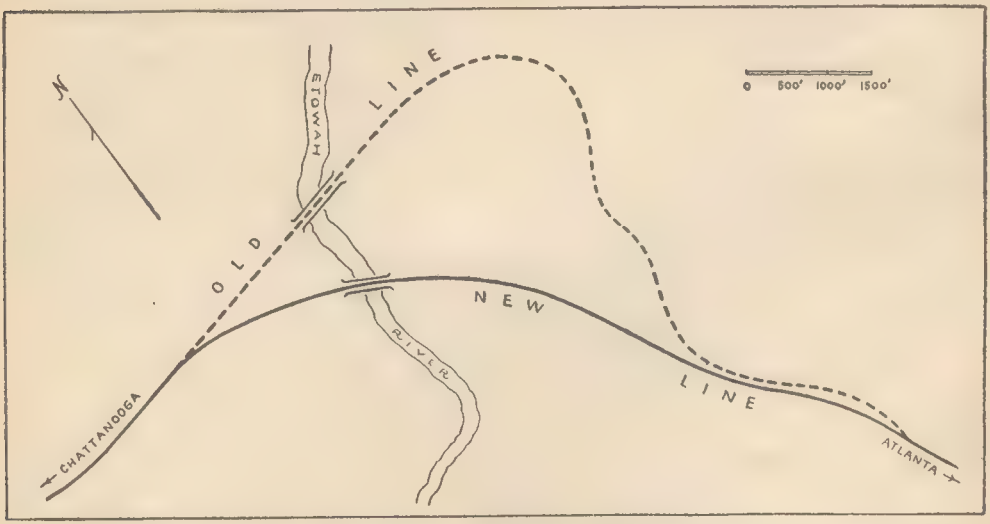
"We've been looking for a route to avoid the extreme curvature between Lena, at milepost 32, and Marietta, 12 miles to the south, where the track crooks to something like 100 curves," the big, friendly engineer says. "Some time back, while we were surveying the new track across the Etowah River, a map came to us through the mails. It was sent by J. Houston Johnston, engineer and one of the best-posted historians of the W&A Railroad. Johnston had discovered the map in an old history book and it showed Joe Johnston's route of retreat before outnumbering forces. I think maybe it's just what we are looking for. Johnston's route passed west of the mountain, giving us a direct shot into Marietta."

THAT morning the Diesel wasn't complaining about the route. She walked the train up Noonday Hill to Kennesaw, where Andrews swiped the *General,* to the tune of 52 miles an hour. Topping the grade at the depot, Fred cut the engines to coast down eight miles of track as full of curves as a gal's ruffled dress. I don't see how it was possible to put so many curves in so few miles, but I reckon that was the only way Colonel Long could hold his grades to 7/10ths of one percent, a remarkable feat through this mountainous country.

The corkscrew track stretched through Acworth, two miles from the bottom of the hill. Another grade lay between us and Allatoona Pass. There are twelve curves on this mile and three-quarter hill, with a slight dip just before the summit at Hugo. Then, swinging through another short dip, the track climbs half a mile to the famous pass before starting on a drunken trail down the Allatoona Mountains to the Etowah River. The tiny towns of Barstow and Emerson are the only habitations on the ruling southbound grade. The Chattahoochee River hill governs the northbound tonnage.

Passing through Emerson, Bob said: "We're on the new track to the Etowah River bridge. That's the old track on the right; we use it to reach the storage yard near the Allatoona Dam site."

Here was the first change in track in the program. The old line clung to the mountain slopes and ridges in seven curves so long and sharp there was hardly a tangent between them, but Joslin had swung his grade away from the mountains to cross the Etowah on a long hill 76 feet high. This route cut out two-thirds of a mile of track, replaced two reverse



Alignment changes on the Atlanta Division, near Cartersville, Ga., eliminated curvature of 212 degrees, saved a distance of 3560 feet

curves with a two-degree bend and eliminated 212 degrees of curvature.

The Allatoona Dam, east of the railroad and between Acworth and Cartersville, is one of the Government flood control projects. It will require the railroad to relocate about three miles of track across the Etowah. This will reduce the distance one and a half miles and eliminate a large number of the forty-six curves. There will be quite a difference in the old W&A when this job is completed to hook up with new track north of Cartersville and the likely change in the vicinity of Kennesaw Mountain.

Aerial view of the Nashville Shops and main line to Memphis. Yard trackage fans out in an irregular Y shape, with the huge, tire-shaped roundhouse dominating upper triangle near highway

We clocked through Cartersville at 9:41, covering the 46.63 miles of crooked track in one hour and eleven minutes. "The greatest track changes are north of here," Bob said as Fred bridled the Diesel through the prosperous mining and textile town, "so you'll see some real running from here on into Chattanooga."

Half a mile north of Cartersville the L&N's southbound train from Knoxville joins the NC&StL track to enter Atlanta. During the war, the two railroads were faced with the problem of double-tracking the crooked line from Junta to Atlanta. Time was short and material scarce. In desperation, the officials turned to CTC, which proved their salvation. It was cut in to Junta on June 12, 1943; and installation, started at East Chattanooga in January, 1946, was completed to Junta in June of 1947, giving the railroad CTC from Atlanta, through Nashville and to Bruceton, a junction point on the Memphis Division.

We swept through Cass on new track that took out several bad curves. Sometimes the old right-of-way was beside us and then it showed beyond the hills the new track cuts through. It's running ground, good for any speed, but Fred held the Diesel to 60 miles.

Just beyond Conosene, between mileposts 56 and 57, four curves have been replaced by a one-degree curve, only a slight bend in the track. This future race-course to Kingston, the junction point of the abandoned line to Rome, was the scene of a freak accident in which Fred Mayers and his fireman figured on Saturday night, March 2, 1937. Fred had the 551, one of the Mountain types, on the smoky end of the *Dixieland,* the high-stepping Florida tourist train. He was a little late that night and he was ringing the stack on the north grade to Summit. At the peak of the hill, he shut off to let them roll on straight track through Halls and Cement. Kingston was less than two miles from the bottom of the hill. The 551 rocked through Cement and Fred opened her up again for the stiff climb. A second later, came the sudden crash; immediately the cab filled with steam and the engine leaped forward, as if free of her load. And she was, too! The huge steel bar that holds the tank and engine together had snapped. The safety chains also broke under the tremendous weight of the thirteen cars.

Fred took the 551 on into Kingston and headed in the sidetrack. Miss Clare Robinson, night operator, ran out. At sight of the bobtailed engine, her hand went to her mouth in scared surprise.

New track between Nashville and Bruceton is now said to run due West, but not so much so as to deprive NC&StL trackage altogether of its characteristic curves. Gray bituminous slag gives this fill its appearance of water lapping against track side

"W-wh-where's your train?" she gasped.

"Back yonder apiece," Fred said, mopping his face. "Tell DS to get me another engine."

There was a southbound freight in the hole; it brought in the 551's tender and the train, and in less than an hour Fred was on his way with the confiscated engine. I know he wheeled cars that night, for I was living near the river then and the *Dixieland* shook my house when she thundered down the crooked track to the Chattahoochee between one and two.

Just out of Kingston where Fred broke in two, five curves have been taken out and the track raised seven or more feet. "We've been running over this track six months," Bob Cox said; "it's straight track for five miles."

We topped Summit on this straightaway and just beyond, where the old curves hindered speed, we crossed the original line three times in two miles. Bob told me it was new track all the way to Adairsville. We clocked through there at 10:04, right on the cat-hop. Leaving Adairsville, the railroad cuts through hills the old line dodged around. Some of the clay cuts showed white, others yellow, red and blood red; the rock cuts were veined with different kinds of ores. At the 74th milepost Bob pointed out where two reverse curves had been replaced with a one-degree bend. North of McDaniels, between 76 and 77 mileposts, two other reverse curves had been taken out and a one-degree bend substituted to connect practically straight track with the changes made south of McDaniels.

We passed through Calhoun at 10:15. Fred had covered the 78 miles in one hour and forty-five minutes.

Just south of Resacan between mileposts 82 and 84, five curves leading to the Oostanaula River bridge (Andrews tried to burn it by cutting off a boxcar with a crosstie fire inside) have been replaced with a two- and a one-degree curve; and a little farther on, two miles south of Tilton, twelve curves have been replaced with a one-degree and 40-minute bend and a one-degree-two-minute curve.

North of Tilton, on either side of the 91 milepost, three curves have been taken out and a one-degree put in to give straight track to the 93 milepost. Here two reverse curves were removed by putting in a two-degree curve. Later, in Nashville, the engineering department informed me that the new track meant thirty-six curves less on the railroad, the curvature removed being almost six complete circles.

It is 45.39 miles from Tilton to East End Avenue, just out of the Chattanooga depot, and the end of CTC. Fred paced this in 47 minutes, backing into the station at 11:25, two hours and 55 minutes after leaving Atlanta.

AS FRED got ready to leave the cab at the end of his run, a smiling Irishman carrying a strange-looking bag climbed up, nodded and went to the nose of the engine. "This pretty fellow is Thomas S. Maloney," Fred said, "and that's a home-made hat box for his felt hat he's carrying."

Maloney is the second oldest hogger on the Nashville-Chattanooga end of the line. Only Sam J. Valentine, on the other turn of the *Georgian,* tops his fifty-two years of service.

As Maloney settled into his seat, Bob Cox bade me good-bye and W. F. (Bill) Jones, traveling engineer, whom I mistook for the fireman, came through the engine-room door.

Maloney chuckled softly. "That fellow," he said, nodding toward Bill Jones, "is the damndest liar on the railroad and don't you believe a word he tells you." It was only later, while the traveling engineer relieved him for a spell, that Maloney explained who Jones was. "He's the best-posted man on Diesels and steam locomotives on the railroad," he almost whispered. "He cubbed me on this job and if I do say so, I think he did a damned good job."

I hadn't known that Jim Fahey, traveling engineer for 36 years, had retired. "Things are changing too fast for us old fellows," Tom Maloney confided, "and

we can't keep up with them. I was born twenty years too soon. Bill taught me how to run one of these Diesels, but I don't know a damned thing about their innards when things go wrong."

We began to talk of the old days while the *Georgian* was being made ready for the 151-mile run to Nashville. Just three years earlier the old Nashville & Chattanooga, the parent road of the NC&StL, had celebrated the centennial of its charter with a big show in Nashville. The W&A had been running trains into Marietta, Ga., when the N&C was chartered.

Not a settlement in the territory the *Georgian* traversed was more than one hundred years older than the W&A. In the 1730s small bands of settlers first began to push over the Blue Ridge and Cumberland Mountains of North Carolina and Virginia, or down the Ohio and Mississippi Rivers, to the fertile valleys of the Cherokee Indian country that is now middle Tennessee. Here the Blue Ridge and the Great Smokies meet the Cumberlands. The lofty ranges imprisoned and at the same time protected the settlers. Treacherous trails snaked up the steep slopes to narrow passes, over which trudging, sure-footed oxen dragged lightly loaded two-wheel carts in summer months when the various clays were baked by warm suns.

The river was the only means of long-distance transportation. It was little used. Freedom, wholesome food and comfortable homes in the narrow, fertile valleys were the important things to the settlers. As the years passed, only small industries, intended to serve community needs, were developed. The rich lands produced bountiful crops. The finest cattle grazed on lush grasses on the mountain slopes; surplus dairy products were fed to swine that produced more meat than the growing communities could possibly use.

By 1830, when eastern men were talking of transcontinental railroads, the settlers had only begun to think of distributing their surplus via the waterways. The Holston, Tennessee and Cumberland rivers were navigable almost from their heads, but the mountains separated these streams. To the west, through a portion of Tennessee, the broad Mississippi flowed lazily, when not on a flood rampage, to the world port of New Orleans. Eastward, the Piedmont Plateau bathed its feet in the waters of the Atlantic Ocean, where several ports were available. It was reasonable for the valley people to think in terms of waterways. But before the streams could be reached, roads must be built to carry heavy wagons over the mountains. The task baffled the hardy settlers and they remained prisoners until the steam cars came.

Back in 1845, Nashville on the bluffs of the Cumberland River, boasted a population of 13,000, the largest in the state. Memphis, on the Mississippi, came second, with 8000. Knoxville, settled on the banks of the Tennessee, in the now famous East Tennessee Valley and the heart of the TVA project, stood third. Chattanooga, near famous Lookout Mountain, was only a river boat stop on the Tennessee River, where a man named Ross had built a landing. Commerce between Memphis, Knoxville and Chattanooga was carried on by steamboat on the Tennessee and Mississippi rivers, but Nashville was isolated from the eastern states by the Cumberland Mountains and could only reach Memphis via the Cumberland, Ohio and Mississippi rivers, a long way as well as an expensive one.

There were no railroads in Tennessee in the early 1840s. The state of Georgia was building the W&A from a proposed junction with the Georgia Railroad, also under construction from Augusta on the Savannah River, to Terminus (later called Atlanta), intending to connect the Tennessee River with the Atlantic Ocean. The Memphis & Charleston was also building from Memphis to connect the Mississippi and the Tennessee rivers by rail and join the W&A at its focal point, thus giving a rail line from the Mississippi to the Atlantic Ocean.

About this time, too, the far-seeing citizens of Nashville began talking of building a 151-mile railroad through the

They built with steel in 1884, bridging the 116-foot-deep gorge three miles down the steep slopes of old Raccoon with a spider-footed trestle that showed that the influence of earlier wooden construction was still dominant

mountainous region east of Nashville to connect with the Memphis & Charleston and join the W&A, which was then operating trains between Terminus and Marietta, 18 miles northward toward the Tennessee line.

Vernon K. Stevenson, a robust, hard-headed Nashville businessman with an Andrew Carnegie beard, might well be called the father of the NC&StL, for it was his shrewdness in emphasizing the high prices Tennessee flour and corn would bring in the "outside" market that led the 1347 original stockholders to invest their savings in the projected Louisville, Cincinnati & Charleston Rail Road. Dr. John Overton, another Nashville citizen, was Mr. Stevenson's staunchest co-worker, and when he rolled up his sleeves and pounded an open palm with a tightly closed fist to emphasize a point, heads could be seen nodding in agreement. One day while addressing a crowd, a heckler interrupted him:

"How ye gonna git a railroad over the Cumberland Mountains?" he shouted, bringing forth a few scattered guf-faws.

"Why bore a hole through them!" the doctor returned with hardly a pause in his speech.

The Nashville & Chattanooga Railroad was chartered under a special act of the General Assembly of Tennessee on December 11, 1845, and John Edgar Thomson, at that time chief engineer of the Georgia Railroad, was engaged to locate a route for the line across the Cumberland Mountains.

THOMSON was born of Quaker parentage in Delaware County, Pennsylvania, in 1808. The son of a civil engineer, he worked on surveys in his native state before being put in charge of an engineering division of the Camden & Amboy Railroad in 1830. One year later he went to England and Europe to learn what the old country was doing with steam railroads. He returned to America in 1832 and was engaged as chief engineer of the Georgia Railroad. He later became chief engineer and then president of the Pennsylvania. In his recent book, *American Railroads,* Stewart H. Holbrook writes, "He was difficult, taciturn, abrupt to rudeness, but he laid out a main line and branches with a foresight which appears uncanny today, a century afterwards."

Thomson made his reconnaissance for the CM&C on horseback through territory of primeval wilderness, crossing the rugged ranges of the Cumberland Mountains and marking a route so accurate that his survey was not deviated from more than three miles at any point. Every fixed location he named was observed by the engineers who followed him, and his estimated cost of construction was within $100,000 of actual expenditures—a remarkable guess when one sees the amount of rock the engineers had to blast through to string steel through the Cumberlands. He made his report in February, 1847, and formally refused remuneration for his work, stating that the railroad was a great national project. With minor variations, the route he traversed is the line of the NC&StL from Chattanooga to Nashville today.

The 1,347 individual stockholders meeting at the City Hall in Nashville in 1848 had subscribed $806,192.50. Shortly afterward, the city of Charleston, stating that its citizens were anxious for the completion of the proposed line from the Atlantic Ocean to the Ohio River, subscribed $500,000 to the capital stock; the Georgia Railroad and Banking Company, which had built from Augusta to Atlanta, added $250,000; and the Central Railroad and Banking Company, building from Savannah to Atlanta, proposed another $250,000. Its stockholders failed to agree to the investment; but meanwhile the state of Tennessee endorsed bonds of the company to the extent of $50,000 for each forty miles up to the first 120, and the city of Nashville subscribed to $500,000 of stock.

Georgians were enthusiastic over the possibility of a connecting railroad at the Tennessee line, but the state was in the throes of building its own line through moutainous country, and had no money to aid the Tennessee road. However, a special act of the Georgia General Assembly on December 29, 1847, provided that the "Nashville & Chattanooga Railroad Company shall be allowed the privilege of making every necessary reconnaissance and survey for an eligible route through the northwestern corner of Georgia, and it shall be allowed the right-of-way for the extension and construction of said railroad and shall be entitled to all privileges, rights and immunities."

Construction was begun at the only place within a distance of nearly 200 miles, north and south, where a railroad could be built without climbing nearly a thousand feet to the top of the Cumberland Plateau. Situated three miles east of what is now Cowan, Tenn., a coal and water station where helper engines boost trains to the top of the two percent grade, this 2,228-foot bore through solid rock is a tribute to the engineering skill of the 1840s. It is said to be the first tunnel blasted by means of hand drills, picks and shovels. Eight crews worked simultaneously, one from each portal and six from three shafts sunk to the tunnel floor.

Work was started on the shafts in 1848. The approaches to the tunnel are through limestone rock, and almost as long as the bore itself, with perpendicular walls rising more than forty feet in the deepest part at the mouths of the tunnel, but the job was completed on Washington's Birthday in 1851, one year before steel was ever laid to it and nearly three years before the line was completed to join the W&A at Chattanooga.

West portal of Cumberland Mountain tunnel, cut through solid limestone in four years' time (1848-'51) and still wide and high enough for the biggest modern power. Number 395, southbound out of Cowan, turns east on the arch over the tunnel to begin its 37-mile run to Palmer

Unlike many of the old tunnels, cut when motive power was small enough to be loaded into the tenders of modern locomotives and in which, as the power grew in size, enginemen have been all but roasted alive, this 95-year-old bore is still adequate for the demands made on it.

From Cowan to Sherwood, 11.5 miles, there is real mountain track, especially on the 6.22 miles from the east portal of the tunnel to Sherwood. One double reverse curve follows another, yet very few runaways or serious accidents have occurred on the grade.

"We were lucky in having one of the best air-brake instructors in the country," Tom Maloney told me. "The Westinghouse people tried time and again to hire Fred Von Berger but, like many of us, he stuck with the NC. When Fred turned a man loose, he could handle a train down anybody's mountain. Fred retired in 1940 after fifty years' service." Tom smiled. "He's past ninety, yet I understand he married again a short time back!"

The hogger continued, "I do remember one runaway down the east side of the mountain. It was back in 1908, when a deadhead Pullman, a loaded coal car and a crummy broke loose at the mouth of the tunnel. No one was on the cars and they went down the mountain like they were shot out of a gun.

"The dispatcher knew there was a man in the sidetrack at Sherwood, the next station, so he told the operator to get one of the crew to stop the wild cars. Brakeman Neese Lynch reached the track a moment before they went by him like a blurred streak. He watched them disappear and went back to the office.

" 'You tell that so-and-so I'd a caught 'em if he had sent me an airyplane!' the brakie disgustedly told the operator.

"Thinking the runaway might gain enough momentum to pass the NC-Southern junction at Stevenson and climb Raccoon Mountain to drop into Chattanooga like a bullet, the DS asked the operator to clear the track to the yards. But by some freak of railroading, the runaway cars stopped after passing through Anderson, twelve miles from where they broke loose. I've never understood it!"

I went back to thinking about the past

Waverly, Tenn., north of Nashville on the line to Bruceton, as it looked in the days when a lady's hat (see veranda) and a locomotive's stack proclaimed their quality. Waverly is still a telegraph and ticket station

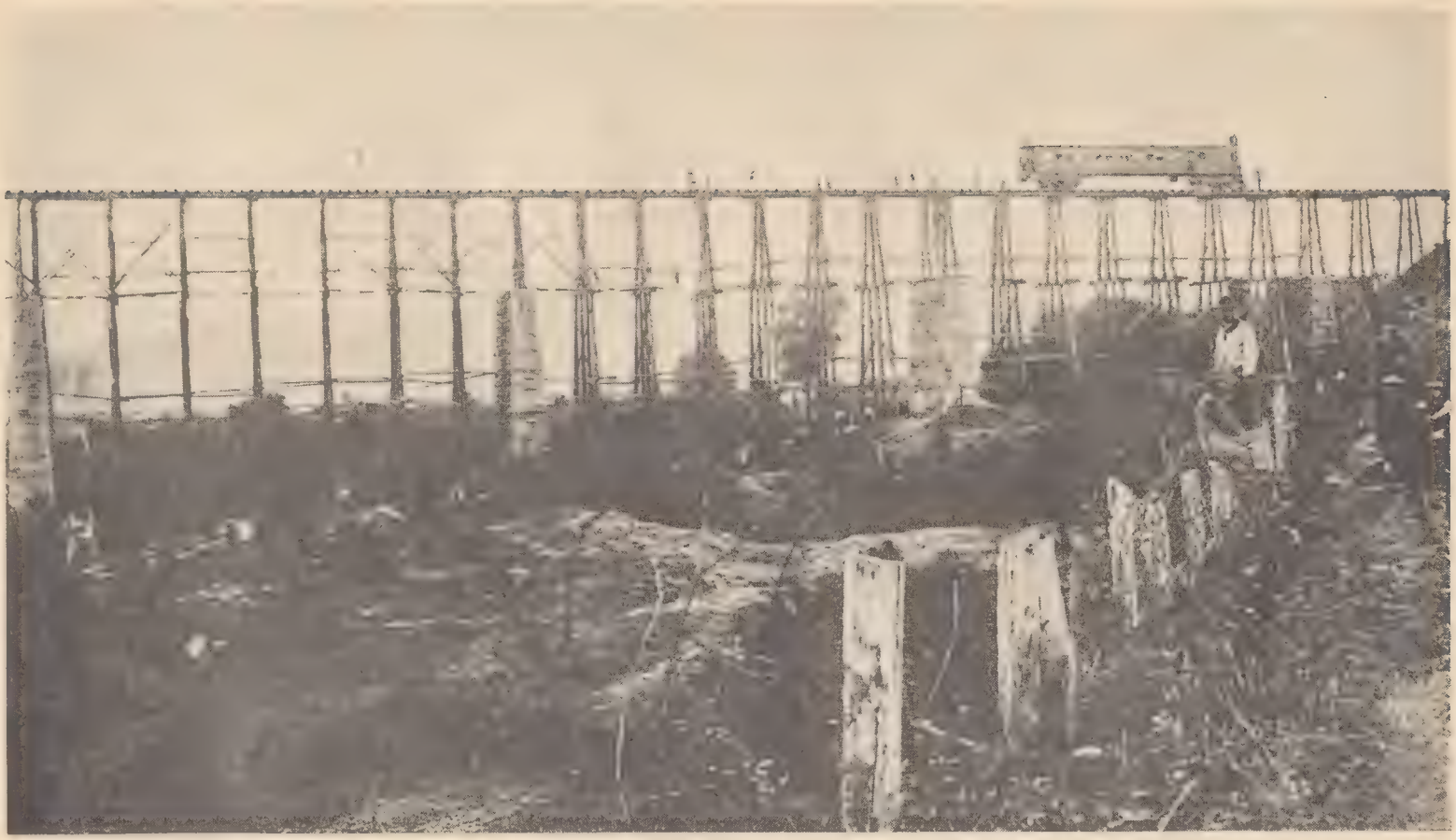
Union Station in Nashville, about 1895, resembled the regulation Southern depot, but enlarged for big-town requirements. Its flimsy battlements must have been singularly unimpressive in a city famous for its copy of the Parthenon. The present Gothic station was erected in 1900

and how the first rails for this stretch of track reached Nashville by steamboat from New Orleans after an ocean voyage from England, and came up the Mississippi to the Ohio and thence by the Cumberland River to Nashville. English rail was laid in south Nashville during March of 1848. Two years later, during Christmas week, the city buzzed with excitement over the news that the railroad's first engine was expected.

She was the *Tennessee,* a 20-ton eight-wheeler built by Harkness & Son in Cincinnati, and shipped down the Ohio and up the Cumberland River to be unloaded and dragged by sixteen mules up the stiff grade of Broad Street and then to the new frame depot on South Spruce Street. The *Tennessee* went into service on Christmas Day, but she did not pull coaches for a little over three months. On April 9, 1851, 9.7 miles of track composed of red cedar stringers laid lengthwise and held together by cedar ties spaced every eight feet was completed to Antioch. Iron straps bolted to the cedar runners served until more rail arrived from England.

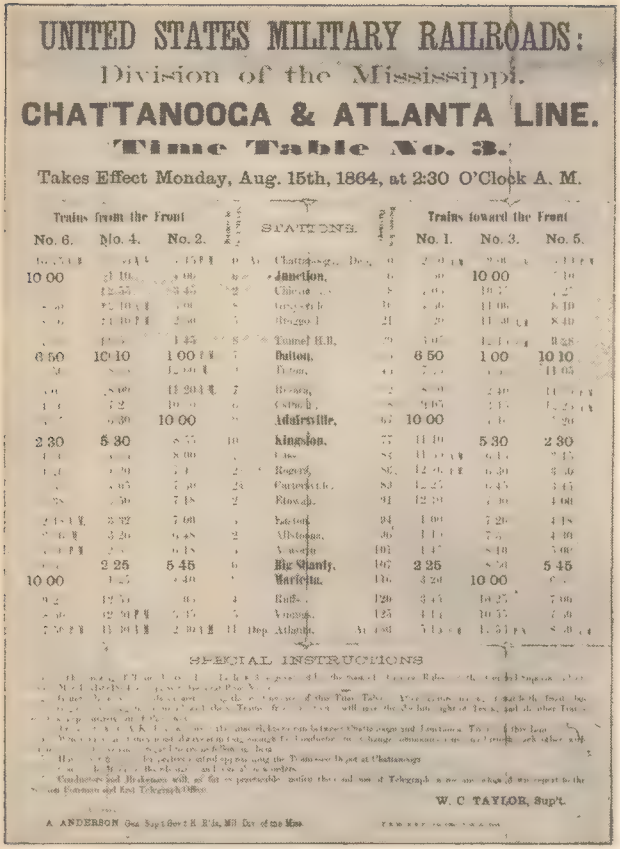
On July 4, the *Tennessee* pulled the first train into Murfreesboro, 32 miles east of Nashville. A field of ten thousand people watched her steam into the little town. From then on, track laying progressed so rapidly that by 1852 trains were operating at Decherd's Station, 82.32 miles east of Nashville and five miles from Cowan, where the stiff climb up the Cumberland Mountain begins. A branch line of eight miles was also opened from Wartrace to Shelbyville.

TWO years later, the Tennessee River was crossed at Bridgeport, Ala., and shortly afterward the first train arrived in Chattanooga. Everything seemed favorable to the new road, but disaster was soon to disrupt traffic for some time. After crossing the river, the engineers had to string steel over Raccoon Mountain, with grades almost equal to those on Cumberland Mountain. The track, as crooked as a blacksnake's trail, passes through deep cuts and it was in one of these gashes that



Sherman's bridge across Running Water Creek, a flimsy pole structure built to replace the trestle destroyed by Confederate Cavalry leader Forrest in his retreat from Nashville. The fifth and last bridge over this stream was erected in 1913; is double-tracked

Longest river transfer made by any U. S. railroad is from Guntersville to Hobbs Ferry at Gadsden, Ala., 20 miles down the Tennessee. River passenger steamers have been discontinued, a Diesel-powered tug handles freight business. Scene is the steamboat landing at Guntersville in 1920



UNITED STATES MILITARY RAILROADS:

Division of the Mississippi.

CHATTANOOGA & ATLANTA LINE.

Time Table No. 3.

Takes Effect Monday, Aug. 15th, 1864, at 2:30 O'Clock A. M.

Trains from the Front				STATIONS.	Trains toward the Front		
No. 6.	No. 4.	No. 2.			No. 1.	No. 3.	No. 5.
				Chattanooga, Dep.			
10 00				Junction,		10 00	
				Cleveland,			
				Tunnel,			
				Dalton,			
				Resaca,			
				Calhoun,			
		10 00		Adairsville,	10 00		
2 30	5 30			Kingston,		5 30	2 30
				Rome,			
				Rogers,			
				Cartersville,			
				Etowah,			
				Emerson,			
				Allatoona,			
				Acworth,			
	2 25	5 45		Big Shanty,		2 25	5 45
10 00				Marietta,		10 00	
				Ruff's,			
				Vinings,			
				Dep. Atlanta, Ar.			

SPECIAL INSTRUCTIONS

W. C TAYLOR, Sup't.

A. ANDERSON Gen. Sup't. Gov't R. R's, Mil. Div. of the Miss.

The Chattanooga road was not taken over by Union forces until November, '63. Atlanta's rail lines were destroyed a month after this timetable was issued

Raccoon went on a rampage that buried the track under twelve feet of earth and stone. It cost $300,000 to stabilize this half mile of track with a tunnel.

During the years following the Civil War the company bought several short lines. On May 31, 1873, the Nashville & Chattanooga added St. Louis to its chartered name as evidence of its intention to build into that city. Before this could be accomplished, the Louisville & Nashville gained control of the NC&StL and built the line itself. However, the 239-mile line to Memphis more than compensated for this loss. During the past few years the company has built this steel into high-speed track. No less than twenty-five curves have been taken out and sixty-seven reduced to two degrees or less. At present, with the exception of a few miles, 70 miles an hour can be maintained.

"Seventy is the maximum speed to which we are building," General Manager McWhorter told me later when I asked if bridle would be put on at 80 or 90 miles an hour. McWhorter is a friendly, clean-shaven veteran whose blue eyes twinkle when talking of old times and who frankly concedes much of his success to one of the most picturesque men the company ever produced, "Little John" Thomas, the son of old John W. Sr., undoubtedly the best loved and most colorful man ever connected with the railroad. The senior Thomas served two terms as president, one short term in 1880 and the last from September 10, 1884, until his death on February 12, 1906, when his son succeeded him.

"Little John" began his railroading strictly on the ground. He learned the duties of an expert telegrapher and could run an engine as well as any engineer. "He tested his men in unexpected ways," McWhorter smiled. "Just to give you an idea of the traps he would set, I'll tell you something that happened more than forty years ago. One day out of a clear sky, I received a message that his private engine the *Tennessee Number 1*, would leave Nashville running as second Number 15, and that Mr. Thomas wanted a direct run to Atlanta.

"Number 15 was the southbound passenger due in Atlanta around 7 p.m. I had three extras moving against him. I gave the first man orders to meet the special at Adairsville and the other two meets at Halls. Mr. Thomas' regular crew were Engineer Jim Fahey and his Negro fireman and Conductor Jim Moore —all Nashville Division men.

"Well, Thomas saw a shady spot on a spur at McDaniels, seven miles north of the first meeting point, and he told Jim Moore to tie up there for the night. 'Get in communication with the dispatcher and tell him of my change of plans,' he told Jim. There was no way to reach me from McDaniels and Jim struck out to find a telephone in a nearby farmhouse and call the operator at Calhoun, three miles back of them.

"When the Calhoun operator reached me, I asked him if he knew where Jim called from and he said no. Well, I couldn't send three trains over track they had no rights to on such information as that, and I held them until 92, the northbound passenger train, ran three or four hours later. They put flags on 92 to their meeting points, and that was that.

"The next day Thomas dropped by my office in Atlanta, and remarked, 'I guess I tied up the railroad for you yesterday.' He had a big grin on his face. 'No, you didn't tie up the railroad—just delayed three freight trains four hours!' I explained. 'You did the right thing, Bill,' he said, and left the office.

J. W. Thomas, Jr.

"Sometime afterwards he pulled a similar stunt when he decided he wanted to go to Rome over the old branch line out of Kingston. This time I had a work extra on the branch and luckily I could contact them to give orders to let the special move over the road to Rome. The work train had working orders until 7 p.m. with instructions to protect itself against regular trains. Mr.

Builder's plate on Number 21's boiler head definitely establishes her as an NC&StL engine; but veteran Dixie Line rails cannot explain the South Berlin road sign at left

Thomas had said nothing about when he wanted to return so I gave the extra crew no instructions about that. Shortly after noon I received a message that the *Tennessee Number 1* was ready for orders to leave Rome with the *Special*. I had no way to contact the extra then so I let Mr. Thomas cool his heels until 7.01 when I gave the *Special* running orders to Kingston.

"He arrived in Kingston between 8 and 9 o'clock and the next morning there was a message for me at my desk: 'Thanks for holding me in Rome all day.' That was all I ever heard of the incident, but I know they said down in Rome that his hair was a little redder than usual that day. He knew I was right, though, and when he reached Kingston he didn't open his mouth to me."

IT WAS 11:30 when Conductor C. H. Damon raised his hand to send us away from Chattanooga on the 151-mile run to Nashville. Six minutes after leaving the station we passed through Cravens Yard, in the shadow of Lookout Mountain and named for the Cravens House which is visible high up on the steep slopes, surrounded by several tall monuments commemorating the battle of Lookout Mountain. The broad Tennessee, with the toe of the mountain forming Moccasin Bend, flows a stone's throw on the right of the yards.

We left the yards and circled Lookout Mountain on our left, with the river on our right, following the serpentine stream on a splendid double-tracked roadbed. Two years ago 131-pound steel replaced 120 all the way to Nashville. This stretch of track is good for any speed a man cares to run and the Diesel had her stainless steel cars in the wind through sweeping curves well under two degrees.

When, after three miles of winding track, Lookout Mountain was left behind, Wauhatchie showed on our left.

"This is where the Southern's Memphis Division connects with us to use our tracks to Stevenson," Bill Jones explained. "It was the old Memphis & Charleston before the Southern took it over. In 1930 the railroad was rebuilt to eliminate sharp curves and double-tracked from Cravens Yard to Stevenson."

From the junction, we took the stiff climb over Raccoon Mountain to cross it through a pass of like name. The grade varies from one and a half percent to one and three quarters with many curves, some of four degrees. Georgia bristles with outcroppings of granite, but the Cumberland Mountain region of Tennessee abounds with limestone. We passed through numerous cuts that had the appearance of being walled with man-laid layers of limestone, the seams in the stratum looking not unlike dark mortar.

Still climbing, we crossed into Georgia out of Hooker. Mr. Jones told me that we would swing into the Cracker State and back into Tennessee twice in the next two miles. A little further on the line enters Alabama for a short distance. The Diesel's speed ranged between thirty and thirty-five miles an hour on the stiff grade. When we reached the 139 milepost, Bill pointed to the right. There, several feet below the track, was a long masonry job which looked like a goodsized culvert, with an old roadbed passing through it. The side next to the new track was exposed, with Raccoon Mountain's steep slopes rising above it.

"The old tunnel," Bill expained, "and it was one hell of a hot hole. It was left as a butting block for old Raccoon when the double track was built in 1913."

As soon as we passed the little smoke hole, the hogger began braking on the winding track down Raccoon. The grade was about equal to that we had negotiated. Three miles down the hill, a long bridge popped into view. "Running Water Creek bridge," Bill said, "the last of five structures built across the long, 116-foot deep gorge." I did not see the little stream below as we crossed the steel and concrete structure.

The first bridge here was destroyed by the Confederates in their retreat down the

On the line of the old W.&A., leased to NC&StL in 1890. The joint roads remained in the black even during depression years. *Above:* a Mountain type moves out of the concreted berm at Tunnel Hill, Ga.

railroad from Nashville. Sherman replaced it with a flimsy-looking pole trestle; the third was an iron bridge built in 1867. A steel structure replaced this in 1884, and stood until the double-tracking was done in 1913.

Still rolling down Raccoon Mountain, we left Whiteside behind us at 11:53. Five miles from this station, near milepost 132, the river swings against the mountain, whose solid layers of limestone rise above the Tennessee 200 feet or more. I've often wondered how old-time engineers had the courage and know-how to forge their way through mountains; how they ever managed to cut through rock-ribbed slopes with pick and shovel and black powder. Now, as I looked at this perpendicular, solid rock wall, I was more puzzled than ever as to how those old fellows back in the late 1840s shaved off the mountain ledge to make room for iron rails.

The railroad snaked along this wall for considerable distance, the height varying as we sped down the narrow canyon the river had cut between the mountains. It was a beautiful sight, but as I gazed at the irregular seams I wondered about the danger of falling rock.

"Trackwalkers patrol this stretch night and day," Bill explained, "and ever so often, scalers prod the mountain for loose rocks. I have never heard of anything serious happening along here."

We were nearing Shellmound, Ala., when Bill called my attention to another wonderful view, behind us and to our right. "It sounds funny when you say it unless you know about this corner where Alabama, Georgia and Tennessee come together, but this is the point where southbound passengers see Lookout Mountain the first time," he said, and looking down the river I saw it raising its head abruptly from the water to 2,250 feet. From the blunt nose above the city of Chattanooga, it extends southwestward in a long narrow ridge to the Coosa River near Gadsden, Ala., a division point on the NC&StL. The famed Moccasin Bend can also be seen as it leads to the narrow gorge between the mountain and Waldens Range, where Hale's Dam of the Tennessee Electric Company is visible.

Half a mile east of Shellmound is the corner where the three states meet. Bill pointed out Nick-a-Jack Cave, from which a creek of the same name flows. "If you remember, this cave was spread over the front pages sometime back when the owner led the public to believe that he was lost in it like Floyd Collins in Sand Cave some years ago."

"It's a mighty long cave," Fireman Wolf chuckled. "A few days after his disappearance he was recognized in New York."

We had passed through Shellmound, at the bottom of Raccoon Mountain, at 12:02, covering 21.73 miles in 32 minutes despite the drag up the grade. Following the Tennessee for six miles we came in sight of a couple of drawbridges, where it seemed we were to cross two streams, but Bill Jones explained that what I saw were two arms of the Tennessee, divided by a 200-acre island. The first drawbridge crosses the navigable channel of the river, while the other leads rails to Bridgeport, Ala., standing at the mouth of the Sequatchie Valley and the junction point with the 60-mile branch to Pikeville, Tenn. The narrow valley takes its name from a word in the Cherokee language meaning Hog Trough, and the rich trough abounds in farms, livestock ranges and numerous valuable minerals.

In exactly nine minutes we covered the nine and a half miles to Stevenson, where the Southern turns off to the left for its run to Memphis. The local freight was waiting for us to pass it. Double track ended here and CTC started again. As we clattered over the Southern turnoff, I saw one of the Yellow Jackets pulling through the sidetrack. "It's the M-5," Bill Jones said, "the fast freight you mean to ride back to Atlanta."

In front of us lay the rugged Cumberland Mountain, which we would have to cross by following the gorge of Rush Creek, the only place within 200 miles where the railroad wouldn't have had to

Stark against the billowing cumulus of a Georgia sky, the great coal chute at Hills Park, Atlanta, feeds bituminous into Yellow Jacket 575

The 536, sister engine to the 535, wheeled the *Dixie Flagler* on her Miami-Chicago run on alternate days. She was streamlined in the Nashville Shops

climb nearly a thousand feet above the tunnel floor to cross the top of Cumberland Mountain.

MALONEY walked them through Bass at 12:24 and was clipping the miles around 70 when my attention was called to new track north of the town. "Many curves were taken out along here in 1946," the traveling hogger said, "and the new track stretches to Anderson. They're putting in a new bridge across a creek farther on—had to sink steel casings more than sixty feet to rock foundation for the concrete piers."

To bypass the bridge under construction we passed over a shufly track without a noticeable reduction in speed. A little farther on, Maloney pointed out where brand new track had taken out a double reverse curve, the new line crossing the old one. We roared through Anderson, meeting the 573 on the smoky end of a drag. Sherwood was the next station and as we sped into the outskirts of the town, Mr. Jones showed me the long sweeping curve of the old roadbed near the new track.

Sherwood is at the foot of a five-mile climb to the tunnel under Cumberland Mountain. It was 12:35 when we clocked by the telegraph office to enter the double track leading to Tantallon, 1.84 miles west, where trains to be assisted by helper engines stop at a block signal controlling single track through the tunnel. It is there the helpers are coupled on, with timecard rules to cut loose from the rear of the train before the caboose, or last coach, enters the tunnel. "Helper engine must not enter the tunnel when it is accompanied by a train," the rule ends.

The Diesel slowed on the almost continuous curving track of the 4.38 miles of two percent track to the 2,200-foot bore through solid rock. Nearly a mile from the tunnel, after passing numerous small cuts through the limestone rock, we entered one whose walls were perpendicular. The height varied in places from ten to thirty feet until we reached the signal light guarding the tunnel where for a space of 1000 feet or more the height was nearer forty feet.

As we passed a sidetrack, Bill Jones told me it was used by all trains to stop and turn up retainers before starting down the mountain. "In old days," he added,

"there was a safety track up the mountain into which trains were turned when out of control on leaving the tunnel."

For a number of years Mallets were used on the mountain in pusher service, but now they have been scrapped and two Mikados bought to replace them. "One is used to double-head the Yellow Jackets on passenger trains," Bill Jones explained, "but it takes two of them to help shove tonnage freights." The through tonnage rating for the J-3s, the last 4-8-4s, is 1850 tons southbound. Northbound rating is 1650 tons for the same trains and engines.

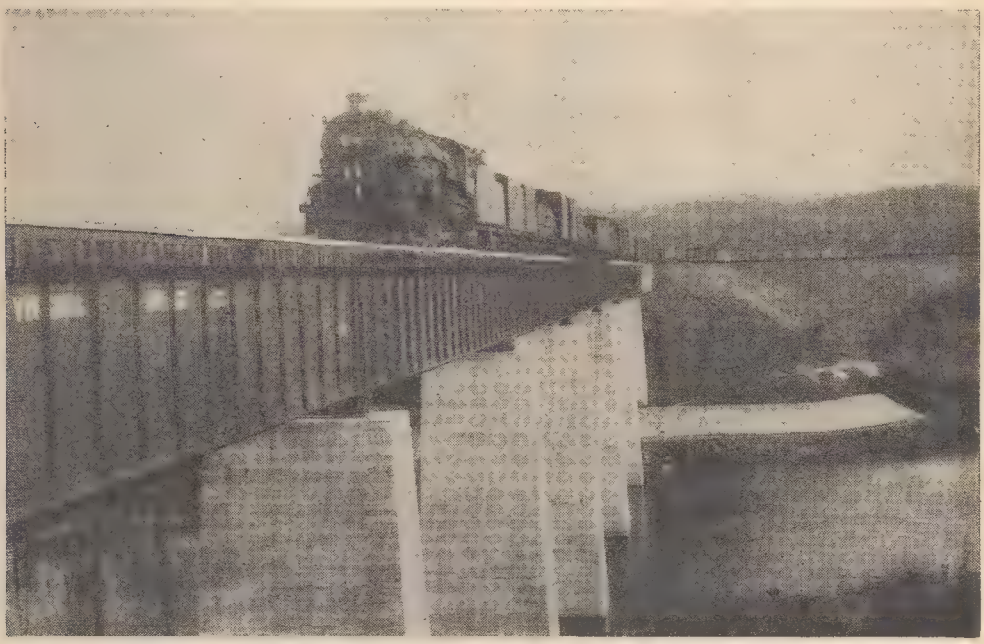
The Mars light was turned on for my benefit as we entered the tunnel. "Track walkers patrol it and the rock cuts," Bill Jones told me, "looking for loose rocks, and every so often a feeler car is used to detect any shifting of the rock strata that might endanger clearance. The rails are welded into two ribbons of steel."

We nosed out of the rock bore at 12:43 and the Rockledge tower, which controls operations through the west end of the tunnel, was just ahead.

"Another interesting thing about the tunnel," I heard Bill Jones say, "is the masonry bridge above the west portal over which the Palmer Branch passes from Cowan to reach Palmer. The line is only 37.59 miles long, but as rugged as pig iron."

We passed through Cowan at 12.48 and the *Dixie Flyer,* Number 95, with one of the Yellow Jackets tied in behind a Mikado helper, was waiting for us to clear the passage to the tunnel. The trim 4-8-4 had seventeen coaches, mostly Pullmans, behind her.

At Cowan we left the mountains for the slightly rolling valley which stretches practically to Nashville. Just before we reached Decherd, five miles west, we rolled onto arrow-straight track relocated and built during the years following World War I. The hogger touched me on the arm. "I'll show you the only straight track I ever saw that curves," he chuckled and looking in front of us, I saw a slight bend in the track, no more than going from one main line to the other. "They had reached this point when appropriations gave out in the money panic following the other war, and they just never got around to taking the kink out."

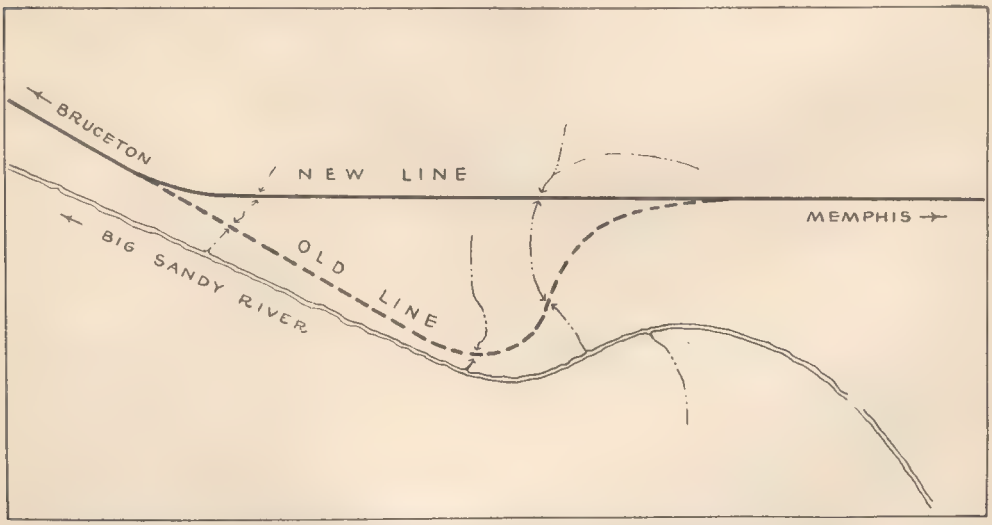


First train across the W&A's new Etowah River bridge. Old track clung to the Allatoona Mountain slopes and approached the bridge in seven curves within two miles

The *Georgian* swept through Decherd, the junction point of branch lines with an aggregate mileage of 222 miles, that reach to Winchester, Fayetteville, Lewisburg, Petersburg and Columbia in the rich bluegrass farming and livestock section of Tennessee, and to Huntsville, Guntersville, Albertville, Boaz, Attala, Alabama City and Gadsden, important Alabama towns, especially in the manufacture of textiles, steel and metal.

An interesting feature of the Gadsden line is the fact that continuous rails do not enter this steel city. At Hobbs Island point we dropped off the beach into the basin. Tullahoma is the junction point with the 80-mile branch to Sparta and the Bon Air coal fields on Cumberland Mountain.

As we wheeled through the beautiful valley after reaching the bottom of the grade at Normandy, several miles of new track were pointed out to me through Wartrace and on to Bell Buckle, where we met the 654 on the smoky end of a drag. The track was straight as a shingle, and the Diesel was strutting her stuff with the stainless steel coaches.



New line between Wildersville and Timberlake replaces two six-degree curves with a long tangent and a two-degree curve

trains are transported on barges for a 20-mile trip on the Tennessee River to Guntersville where the rails start again for the run to Gadsden. Up until a few years ago, two picturesque river steamers hauled two ten-car barges along the river, but after passenger service was discontinued, a Diesel-powered tug boat did the work of the steamers. Two Consolidations are kept on the south side of the river to service the important Alabama towns.

We were in the valley of the Elk River and the old line could be seen occasionally, above or below the new main. Straight track led us across the Highland Rim, the bench land above the Middle Basin of Tennessee, to Tullahoma, from which

We swept through Rucker at 1:39 and I barely got a glimpse of the 574, one of the Yellow Jackets, loafing through a sidetrack to let us pass. Bill Jones remarked that back in December of 1946 he left Nashville at 3:07 on a trial run to Chattanooga with the *Georgian* and pulled into the station at 5:32, thirty-five minutes short of the listed schedule of three hours. But then, he went on, ten or twelve years ago, Joe Clark had wheeled the Northbound *Dixie Limited* from Chattanooga to Nashville with steam in two hours and thirty-seven minutes.

Speeding through beautiful farming country, we left Murfreesboro, Florence, Smyrna, Lavergne and Antioch behind

us. All of this track is good for any speed a man wishes to run, having been rebuilt during the years after World War I. Just south of Antioch, I was shown where recent track eliminated a sweeping curve. A little farther on, at the ten-mile post north of Antioch, crews were working on a grade to take out a sweeping curve and at the six-mile post, another curve was being eliminated to make a straight shot into Glencliff, the beginning of double track into Nashville. "This is the last point on the grade and curvature reduction program," Bill Jones said, as we passed the Glencliff tower at 2.18.

M-5, champion of NC&StL's hottest freight run, stops at Cowan for coal and water before she breasts the Cumberland Mountain's two-percent grade

SHORTLY after we reached double track, we entered the long rock-walled gorge of Rains Cut, whose depth averages from ten to thirty feet. In the old days there was a hump in the track through the cut which lowered tonnage, and Little John Thomas decided to do something about it. He called in Engineer Jim Fahey and asked him if he could do the job. "We can pull two hundred more tons out of Nashville if you can." Jim said he could and he did, even though Thomas wouldn't let him widen the cut for double track. Jim lowered the grade eleven feet through rock without interrupting traffic —which is pretty good for a hoghead. And instead of hauling 200 more tons south, the rating is 500 tons today.

Just before entering the station, we passed through the east end of the huge Nashville Yards. The day I was in Nashville, the L&N turned over to NC&StL 151 Chattanooga cars and 214 routed to Bruceton and Memphis. This is easy to understand when you remember that in 1896 the L&N leased to the NC&StL what now constitutes the Paducah and Memphis Divison, extending from Paducah, Ky., to Memphis, and crossing the Nashville Division of the NC&StL at Bruceton, Tenn. The railroad out of Nashville branches off from Bruceton with three prongs: one to Paducah, another to Hickman, Ky., and the third to Memphis. A large portion of the company's freight originates on these prongs.

It was 2:30 when we rolled under the right-hand, outside track almost below the Broad Street bridge and came to a stop beside the beautiful *City of Memphis*. We had climbed to the ground to make room for the L&N crew when Bill Jones touched me on the arm. "The old man forgot his hat box and I've got to get up there and get it for him. Don't forget to ask him what I told you to."

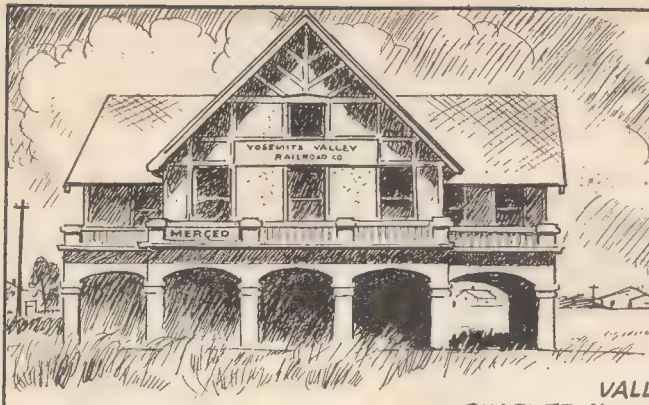
Tom Maloney was uneasy about his hat, not paying any attention to the conversation between Bill and me. "Say," I asked, "what is this Bill says about you going to give up the Diesel?"

"I told you not to believe anything that lying so-and-so told you!" he barked.

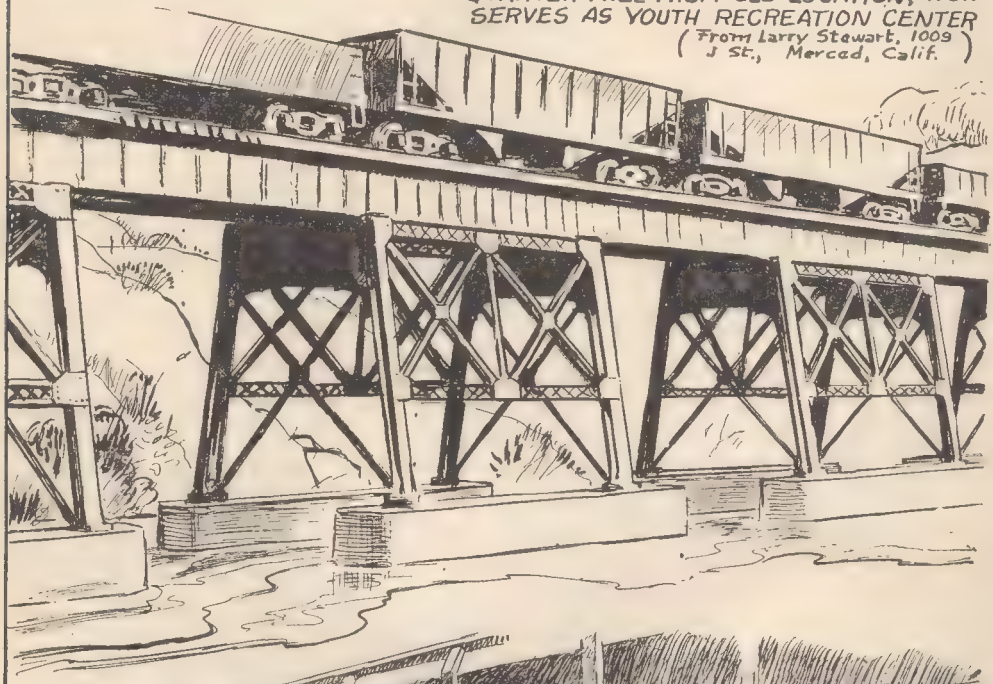
While we stood laughing, Bill joined us again. The *Georgian* pulled out on her way to Louisville and five minutes after she nosed to the right on L&N track, the *City of Memphis* passed under the Broad Street bridge to follow the *Georgian* a short distance and then turn left for the run to Memphis. The prides of the NC&StL are pretty things, seen gliding along the rails from the bridge.

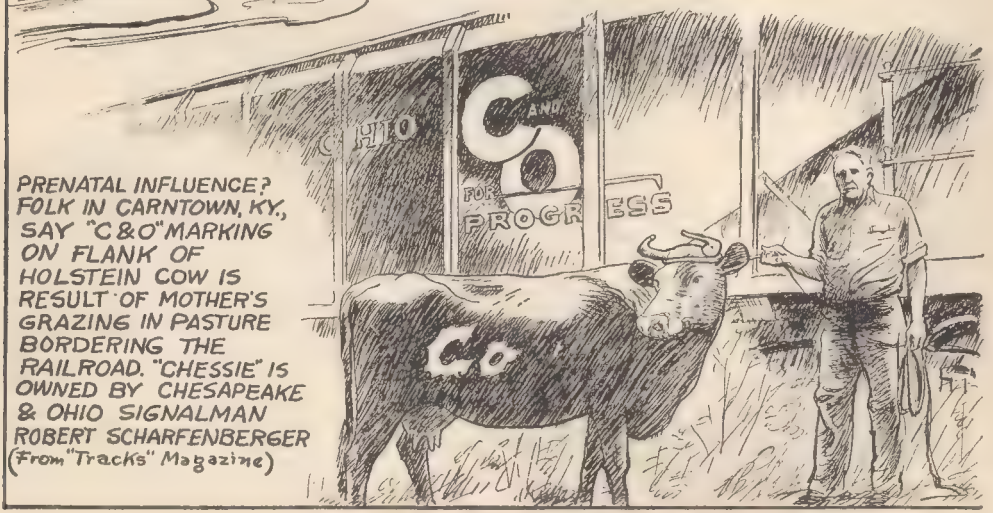
ALONG THE IRON PIKE

by JOE EASLEY



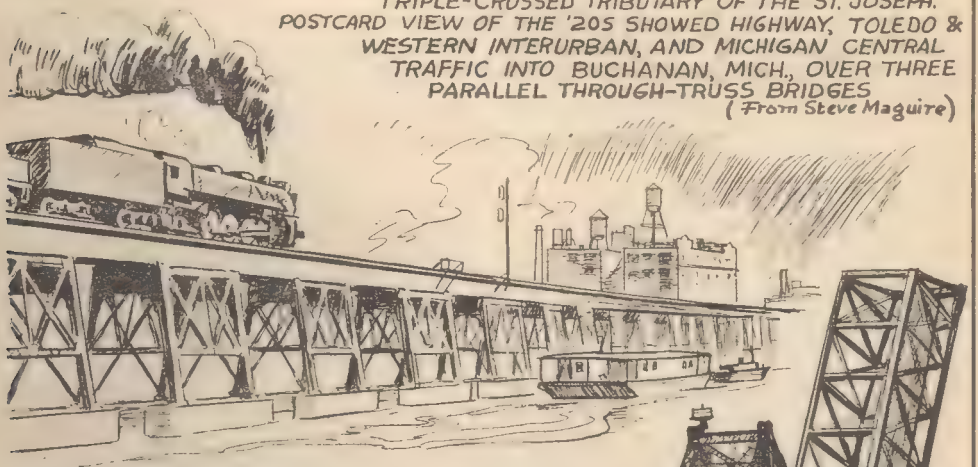
NO USE WAITING FOR THE TRAIN FROM EL PORTAL. MERCED, CALIF., STATION OF NOW-ABANDONED YOSEMITE VALLEY HAS BEEN MOVED A QUARTER MILE FROM OLD LOCATION; NOW SERVES AS YOUTH RECREATION CENTER (From Larry Stewart, 1009 J St., Merced, Calif.)



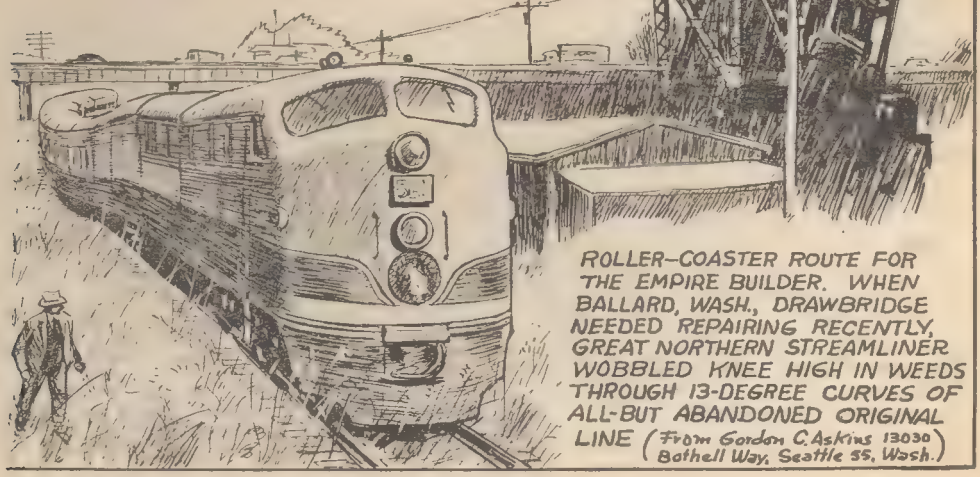


PRENATAL INFLUENCE? FOLK IN CARNTOWN, KY., SAY "C&O" MARKING ON FLANK OF HOLSTEIN COW IS RESULT OF MOTHER'S GRAZING IN PASTURE BORDERING THE RAILROAD. "CHESSIE" IS OWNED BY CHESAPEAKE & OHIO SIGNALMAN ROBERT SCHARFENBERGER (From "Tracks" Magazine)

TRIPLE-CROSSED TRIBUTARY OF THE ST. JOSEPH. POSTCARD VIEW OF THE '20S SHOWED HIGHWAY, TOLEDO & WESTERN INTERURBAN, AND MICHIGAN CENTRAL TRAFFIC INTO BUCHANAN, MICH., OVER THREE PARALLEL THROUGH-TRUSS BRIDGES (From Steve Maguire)



RIVER BRIDGE WHICH DOES NOT CROSS A RIVER IS C&O STRUCTURE WITH FOOTINGS IN THE JAMES JUST ABOVE RICHMOND, VA. OVER A MILE IN LENGTH, IT AVOIDS STEEP RIVER-BANK GRADES (From "Tracks" Magazine and Bob White)

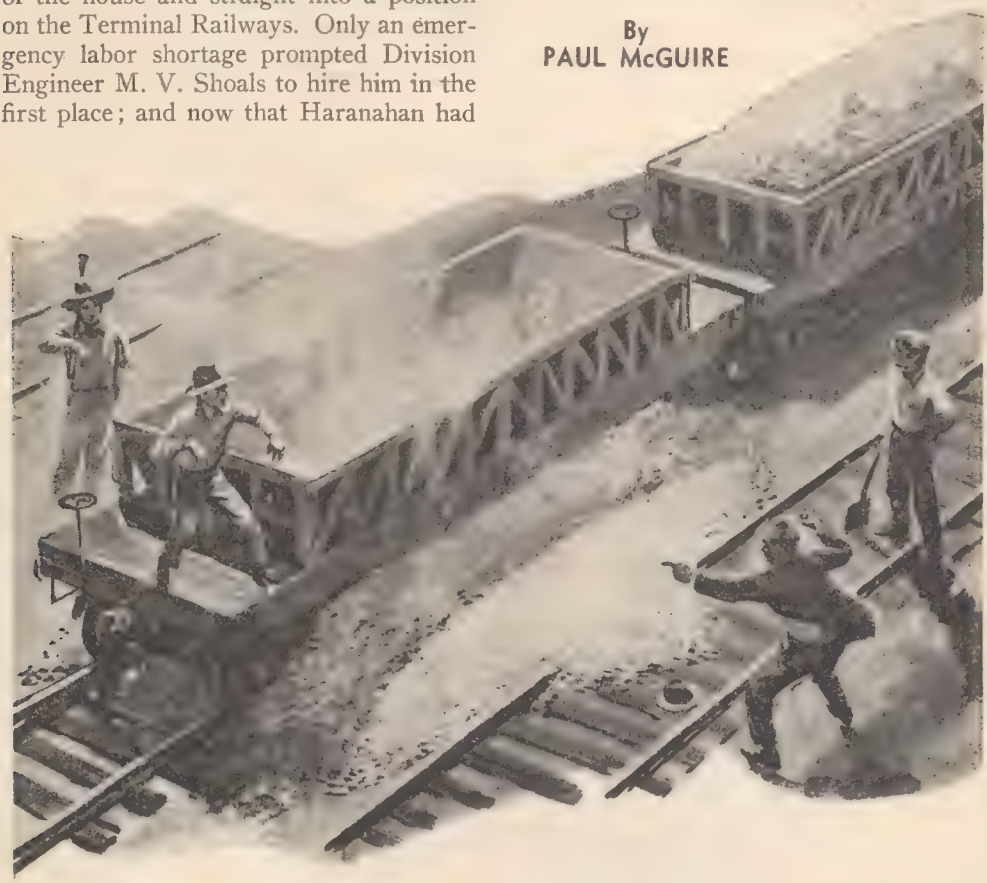


ROLLER-COASTER ROUTE FOR THE EMPIRE BUILDER. WHEN BALLARD, WASH., DRAWBRIDGE NEEDED REPAIRING RECENTLY, GREAT NORTHERN STREAMLINER WOBBLED KNEE HIGH IN WEEDS THROUGH 13-DEGREE CURVES OF ALL-BUT ABANDONED ORIGINAL LINE (From Gordon C. Askins 13030 Bothell Way, Seattle 55, Wash.)

Haranahan's New Boss

By
PAUL McGUIRE

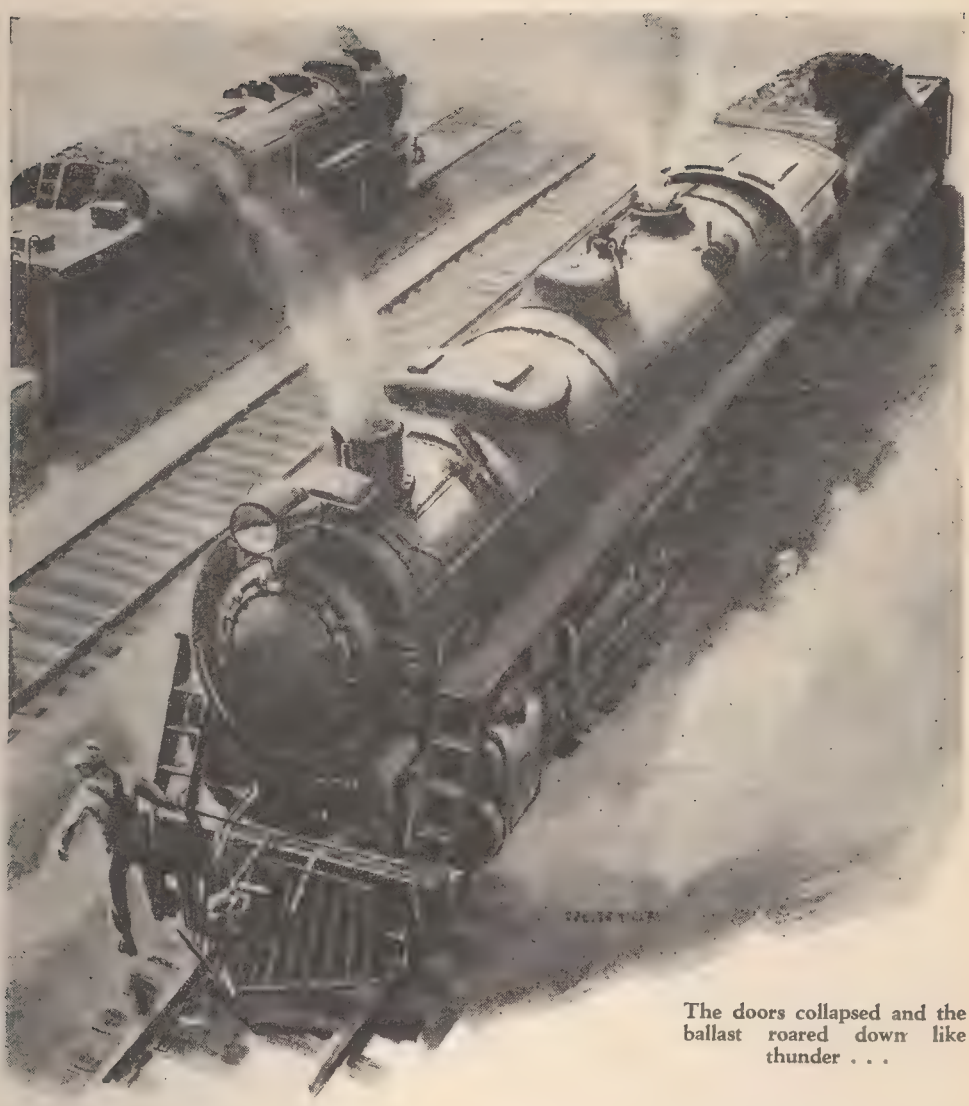
IT WAS an entirely new feeling to Haranahan to be worrying about keeping a job. The big, goodlooking Irishman had never done a lick of work in his life until the day his wife Molly drove him out of the house and straight into a position on the Terminal Railways. Only an emergency labor shortage prompted Division Engineer M. V. Shoals to hire him in the first place; and now that Haranahan had



six months' seniority as a track foreman in the Terminal yard and was wedded to industry and advancement, he knew very well that he had just spent the most pleasant six months in his entire previous life of barrel-house brawls and general uselessness. He also knew that the labor shortage was over and more experienced men than he were clamoring for his place.

Haranahan figured that he had to do some big thing to prove himself invaluable in the Terminal yard. Unfortunately, though, the daily tasks outlined to him by Mr. Shoals and the steady chores of cars to clean, transfer and unload, were too routine to give a green foreman any hope of showing an impressive amount of initiative. There was undoubtedly a great deal of work to be done but, sharp as he was, Haranahan couldn't find it.

When the DE showed up one fine morning and went into detail regarding all his sins of omission, Haranahan figured for certain that Mr. Shoals was just leading into a firing order. "I really should have made you an assistant under a good extra



The doors collapsed and the ballast roared down like thunder . . .

gang foreman," Shoals said, referring to the emergency when Haranahan was hired, "but because of your age I thought it best to trust you in the yard rather than some young buck. You've learned quickly," he continued, "but it will be a long time before you are a first-class yard foreman."

This dampened Haranahan's spirits still further, for he had thought of hiring out on one of the main lines adjacent to the yard if the Terminal cut him off. But then the old man gave him a big lift by saying, "However, I've recommended you as the most promising foreman on the division and I am sure that you can stay on as long as you like if you continue to take the same interest."

Haranahan was up but now he had to come down again. The old man went on impressively, concluding the longest speech he had ever made: "I am taking my pension in a few days and I want you to know before I leave that you cannot be removed from this section without a serious viola-

tion of the rules if you belong to the United Railroad Workers. Furthermore, I'd advise you not to quit. The pension law may be changed any time so that you may yet receive a full pension when you are forced to retire."

Haranahan was sunk and he knew it. It was nice of Mr. Shoals to tell him all these things, but it wouldn't help a bit. The management could fire him anytime they wanted to even if he had borrowed the money to pay his union dues the day he went to work.

He knew, too, that he couldn't take the raw-hiding that some of the mis-fits put out. In his dejection he forgot to ask who the new boss might be.

He reached home that afternoon with the spirit of a half-drowned kitten. But Molly was delighted with the news. "I know they will promote you, I just know they will," she cried. "You're the best foreman they ever had and they can't help but know it." And then in the same breath, "Just to be certain that they don't overlook you, I'll pray to the blessed St. Michael; in fact, I'll light a taper for him this very evening and I know he will intercede for you."

"Now, please, Molly, please don't get the blissid saint to working on the railroad," begged Haranahan. "You've always had him mixed up in all my life so far and nothing good ever came from him except the hundred dollars that I borrowed from the Church money."

"You only know half the story," retorted Molly, "and besides it's a wonder that such a grand saint would have any time at all for the likes of us. St. Michael is a fine son of Erin, big and goodlooking just like ye are and always fightin' the divil himself—which you shouldn't be doin' all of the time. With thousands of sorrowful women praying to him is it unreasonable to suppose that he can't hear all of them every time they want something for themselves or the likes of ye?"

"Molly, I ask you in all of your faith, which I don't deny is good," pleaded Haranahan, "if you have got to pray for me, just ask the grand St. Michael to see that I don't get run off. Promotion I don't want, responsibility I have too much of already—just pray that I be left alone."

HARANAHAN had forgotten about the good St. Michael when the new Division Engineer showed up on the job. His reputation had preceded him and all the yard foremen were set for the worst. He was a tough, hard-fighting gang pusher by the name of O'Bannion.

The two Irishers met for the first time head-on in the middle of the main line. "I'm the man who is going to make a railroad out of this mess of junk," began O'Bannion without any introduction. "From the looks of this main line, I take it you're the Old Man Jones."

Haranahan's red face turned a deep purple; he tried to speak three or four times to give the man fair warning before he thrashed him within an inch of his life but he couldn't get his breath to say a word.

Old Man Jones had held his rank for years as the sorriest foreman in the Terminal yard or any other yard for that matter. Mr. Shoals had swapped him around doing the dirty work for other foremen while they did his track work and managed to keep him on the payroll. Haranahan's head was bursting and his throat was dry. All he could do was stiffen his six feet two inches of powerful sinew, expand his barrel-like chest for a breath of air and stare straight into the eyes of O'Bannion.

"If you aren't the Old Man Jones," continued O'Bannion, ignoring the bomb about to explode in his face, "I'll have him come over and line up this streak of rust for you day after tomorrow."

He breathed out when he said it and that is what saved him a broken neck, for Haranahan sensed that he had been drinking and his heart went out to him. He recalled his own first day on the job, lying in the blistering sun behind a tie pile, and he smiled.

"Now, Mr. O'Scallion," began Haranahan soothingly, "it's like this: the construction gangs are coming this way and Mr. Shoals thought it best not to do very much work on the main line."

"Listen, Spalpeen, the name is O'Bannion," interrupted the brass hat, "and as for Mr. Shoals, he got the rocking chair because he was old and slow. It looks like you must have had it before you started railroading and if you want to be slow you'll get it again. Why do you go around half dead when you can buy a nice funeral for $35?"

"What we need is a good drink of ice water," suggested Haranahan, his tone getting more and more soothing. He smiled broadly when he saw O'Bannion's mouth tighten at the corners.

The new boss retained his dignity by saying, "It's getting late in the season, the gangs may be pulled off any day and anything you can do to this track won't be wasted. And it will be all right to get at least one yard track fixed up before winter if you can."

"I've got to have a drink of water," said Haranahan and he started moving toward the water keg but O'Bannion went the other way, to Molly's boarding house and ordered two cups of coffee.

Molly set them on the table thinking that someone else was joining the man. When the second cup began to cool she offered to refill it. Then, noticing that the customer had barely sipped the first cup she inquired whether the coffee was good or not.

"How would I know?" growled O'Bannion. "I've got a taste in my mouth likes as if I had been to dinner with a coyote."

"Only the blissid St. Michael can help you," babbled Molly, "but I can do a little something for you in the meantime if you would that I should."

"You can do anything you want to if you will do it quick. I've got an appointment in a couple of hours and I think I'm going to be sick," rumbled the customer. "The boys had a little party for me last night and I don't think I'm going to get over it very soon."

Molly had had plenty of experience with a sick man. Smiling happily, she brought in a pan of ice water and a heavy towel and told him to bathe his face while she fixed a little something for his stomach. The little something was half a glass of orange juice with a band of castor oil in the middle and a narrower one of ipecac on the bottom.

"Thanks to the finest of saints, I haven't fixed one of these for most a year, but I know it will help you for it works double quick; you'll be all right in no time at all," declared the woman.

O'Bannion drained the glass in one gulp. "If it works I'll be your friend for life."

"It'll work all right," said Molly.

"When you are ready to leave go by the back door," she advised and O'Bannion took her advice without waiting to pay for the service.

The next day Haranahan lined the main line. He had plenty of men to move it and he put it where it belonged. When he finished shoving it over it was tangent once more and he was proud of the job. "How does it look?" he asked Don Pedro, the straw boss.

"Lookee likee *vivora*," spoke the Mex candidly.

"That's what I think too," beamed Haranahan. "Got it straight the first time over."

He had only one thing to worry him now when O'Bannion showed up and that was that a man had strained his back lining the track. The Terminal Railroad was strict about personal injuries and O'Bannion would be sure to make something of it.

"A fine job you done on the main line," shouted the new engineer the next time he came into the yard. "You divide up one nice smooth swing into a thousand little kinks and who could lay new rail to that kind of gage? Why didn't you line out the little kinks while you had the track loosened up?" he harangued.

"Why, you see, I forgot my glasses," explained the sharp-thinking boss.

"What I see, Haranahan, is that you are not only a damned poor trackman but a damn poor liar as well; for by the looks of your nose, you forgot to ever buy any glasses at all."

Haranahan boiled inside for now he was

thinking of a lot better answers than the one he'd given; but he had the personal injury case to settle and he got to it as quickly as possible. "What do you want me to do with a man who got hurt yesterday?" he began in his most pleasing manner.

"Throw him in the *mar* and let the *viveros* eat him," declared O'Bannion as he turned and walked away. Part of the dig Haranahan understood and part of it he couldn't quite remember. Turning to Don Pedro he inquired, "What is the *mar* and what are the *viveros?*"

"Snakes," grinned the straw boss, "lookee likee you line up track," and he explained it better with a long wavy motion of his hand.

"If that O'Bannion don't keep them in his boots, I'll have them in mine," mused the out-smarted kingsnipe.

Haranahan lined the main line again and gaged the kinks that didn't line out. He now had a dog-leg kink in the switching lead and he had to reline the full length of it and some of each sidetrack leading off from it. All of the switches had to be re-adjusted, and some had to have new gage plates and ties before he could put them to correct gage.

O'BANNION was unduly critical of everything he did or didn't do, but he never once assigned him a job or a number of jobs as Mr. Shoals had always done. Sometimes O'Bannion showed up only once a week but everytime there was hell to pay. Haranahan had never yet won an argument or done anything that seemed to please him. The DE knew a better and quicker way of doing every part of the work and he goaded Haranahan unmercifully.

Haranahan knew he had to learn as much and as fast as he could, for he was going to railroad the rest of his life, whether for the Terminal Company or some other line nearby. He admired O'Bannion's experience and his ability but he had never played second fiddle to any man and it galled him to have to do it now. He'd always been a blustery show-off and he had always been able to make good his bluff, until he tangled with O'Bannion. What hurt most was that he could more than hold his own with him anywhere except on the track.

He had his chance one day when O'Bannion pulled a work train down the main line and told Haranahan to put his gang on it and give the track a light spread of ballast for the construction gangs that were coming closer every day. Haranahan had seen Don Pedro dump ballast several times on the back tracks and he thought that this time he might be able to show the bright engineer a thing or two. He loosened the latches on the big Caswell ballast cars and got set to unwind the doors.

"Where's the blocks?" yelled O'Bannion.

"Don't need them," yelled Haranahan.

"You have to block the doors or it will all come down at once," roared O'Bannion.

"I don't think it will," replied Haranahan in the same tone of voice and he continued loosening the dump ratchet.

A moment later the doors collapsed like a stroke of lightning and the ballast roared down like a clap of heavy thunder. It continued to roar and roll until the car trucks were completely buried and it had piled up against the sills of the car.

O'Bannion threw big and little whingdings; he pawed the ground and he flailed the air and he said naughty words. "What are you going to do now—what are you going to do before *50* gets here—where are you going to put the ballast?" and on and on and on until Haranahan thought the way to shut him up would be to go on home and forget it.

But there was only one thing to do and both of them knew what it was and they finally got the men busy doing it. They shoveled the ballast back away from the track until the engine could move the train ahead and get into the clear. When the hotshot wasn't delayed, O'Bannion cooled off a few degrees and Haranahan looked around for something else to distract his attention.

A switch engine was backing a car

"The boys had a party for me last night and I don't think I'm going to get over it soon!"

against a cut on the adjacent track. He said, "We've got a foine bunch of switchmen here to work with. Some crews wouldn't have moved that car until the very last pebble was six feet from the rail. Jist look how careful they handle that car and no wonder," he went on, pointing to a "MDSE" placard as the car came to a gentle rest opposite them. "Eggs is easily broken," he innocently added.

"Huh?" asked O'Bannion. "What did you say?"

"Eggs," said Haranahan pointing to the placard.

"Damn you, Haranahan," shouted the brass hat, "you can't even read! No wonder you didn't see those boxcar letters on the end of that ballast car, UNSAFE UNLESS BLOCKED."

Haranahan had trapped himself not once but twice. Strangely enough, he wasn't worried. He had talked himself out of worse jams than this. He'd had his story fixed up since a long time ago and now he proceeded to unfold it with a tear in his best Irish brogue.

"Ye see, Sor, it was like this. We were the poorest folks in County Fermanagh where everyone was poor. There niver was a chance to go to school. We wurrked all year in the potatoes or in the bogs gathering turf to keep us from freezing in the winter. We niver had enough to eat and finally the great famine drove us out of the land."

"Shure, shure I know," smirked O'Bannion, "you never had enough potatoes to eat because you made them into whisky. You never had any turf in winter because you was hiding out in the bogs from the revenue agents. You never learned to read because you was too damn lazy. You left the Ould Sod because someone paid your passage over here where you could loaf every day without hiding.

"That, Mr. Haranahan, is your story and here's mine. I saved enough money to leave County Tyrone, not too far from Enniskillen, before the famine. Crops had been bad for several years, as you know. I went to work on the track a few days after I landed and gradually worked out West. I followed the construction gangs and drew extra money every day I worked for taking the lead. If you think I'm not pure cast iron, I'll rattle your old bones any day you feel extra good. I do all the work for this same general manager, Pat O'Sullivan, for four years and when I tell him I am entitled to promotion he tells me this story:

" 'An old Galloway cow had spent most of her days pushing her calf away from the thin sand in the native bog but he had his big, wide eyes on a pretty turf way out in the middle of it. Once, he got an opportunity to take a big long jump out into the bog and he landed in the thin sand. As the suction pulled him on down out of sight the old cow said, *Well, begorra, I always knew that little bull would go a long way.*'

" 'O'Bannion,' Mr. O'Sullivan said to me, 'oratory is the prostitute of the arts and that's all you know or all you ever will know until you learn to read. When you learn, I'll do something for you.' I did and he did.

"Now, Haranahan, I want to do something for you," the DE continued. "Either you read every sign in this yard the first day of next month or I swear by every saint in Erin that I'll run you off and you know I can do it!"

"Shure, and we understand each other," exclaimed Haranahan as he threw his arms around the smaller man, "seeing as how we are jist the same as kinsmen."

As he went toward home that afternoon, Haranahan tore all the placards from a long string of cars and he never worried a moment as to how the switchmen would handle the string that night. When he'd finished telling the whole story to Molly, she was bubbling over with excitement. "Don't you see, Haranahan, it's just like I told you—they want to promote you and they are in a hurry, that is why he gives you so little time." And then she sighed, "I just know that Mr. O'Bannion must be a wonderful man and I can hardly wait to meet him."

"Shure, he's wonderful," agreed Haranahan, "just like your wonderful saint that spends all his spare time courtin' the prettiest little angels."

This was the first time St. Michael had been mentioned since Mr. Shoals announced that he was leaving. Molly was up in arms in a minute. "It's all my own fault that the blissid St. Michael didn't answer my prayer for I lied to him and I don't know whether he will help you now or not but I know he would have if I had kept my promise to him," she moaned.

"You see, I promised him if he gave me the two things I wanted most that always afterward I would light two tapers in his veneration. Both of my boons were granted; you got a fine job and you quit drinking and then I forgot all about the tapers in my exultation." She sighed. "I have cheated you, Haranahan, but I'll teach you the letters in no time at all as my penance and then I know the blissid saint will do something for you."

"You and your blissid saint," said Haranahan. "I give up the best sport a solid man ever had and sentence myself to a lifetime of hard labor and now I have to learn the abc's. Please, Molly, please, keep that saint off my back."

BUT one evening just before the end of the month Haranahan proudly showed Molly his homework. He had copied in laborious print: "THE RULES AND REGULATIONS OF BOARDING HOUSES."

"It's a fine job you've done," praised

Molly, "and a fine law it is that you can't beat a board bill in our state.

"We have never lost a cent here, such fine men the railroaders are," she continued, "except for a poor sick man who didn't have time to pay for his coffee." She then told Haranahan all about the sick man she had befriended. "You never know who it is that knocks on the door of your heart," she sighed; "it might be a blissid saint for all we know."

It may be a saint or it may be the devil himself, but this time I know who it was, Haranahan mused to himself. He recopied his lesson on a clean sheet of paper with some original work added for good measure:

"UNDER THE LAWS OF THIS STATE IT SHALL BE A FELONY TO DEFRAUD A HOTEL KEEPER OF ANY AMOUNT DUE FOR BOARD OR LODGING. 2 COFE 10c. 1 ERLIE RIZER 15c. REMIT TO HARANAHAN BORDING HOUSE."

He put it in a company envelope addressed D. E. O. Care T. R. R.

A few days later Haranahan got his first green envelope out of the mail box at the Yard Office. He had heard enough about Traingrams to know that they brought only bad news. He was certain that he could read most of it but he was afraid that he might not understand it all, so he slipped across the street for Molly to read it.

With trembling hands she opened it and began, " 'Your application for employment has been disapproved.' "

"Ye gods," moaned Haranahan, "what has that great saint done for me now?"

"It's that drunken scoundrel that they call a division engineer and all the saints can't help him!" exclaimed Molly.

Haranahan didn't understand Molly when she continued reading, " 'because it is smeared with finger nail polish and apparently not in your own handwriting.' " Haranahan remembered his first day at work and how nice that girl in the office had been to fill out his application blank.

"Read it again," shouted the excited kingsnipe. "She gave me away for sure, she did! What else does it say?"

"If you want to know what it says just keep still until I can finish it," demanded Molly. "And here it says," she continued: " 'Come up to the office the first rainy day and make a new copy. Signed, E. O'Bannion.'

"Look, Haranahan," said Molly excitedly, "here are a couple of coins in the envelope, a twenty-five cent piece and—oh, praise the saints! It's a remembrance of our blissid St. Michael!

"I told you that Mr. O'Bannion was a wonderful man the first time I iver heard of him," she reminded the smiling yard foreman, who remembered no such thing. "You mustn't forget to invite him and his family over to dinner Sunday."

"Hey—are you sure this is a one-way ticket?"

Light of the Lantern

At left: Sprinkler-type gage, applied to Norfolk & Western tender. Pressure on knob at top of pipe opens valve, admitting water to perforated column

Water Tender Gages

MORE than one railroad man who reads this article will recall the death of some fireman or head brakeman mowed down by an overhead structure while he clambered over the coal to measure the water in a speeding locomotive tender. A considerably greater number of engineers have memories of long delays resulting from an empty tank which necessitated dumping the fire. Later, on the carpet, came inevitable embarrassment and discipline for having run a water plug in an attempt to bring a train in with a minimum loss of time. In some cases the censuring was justified but just as often a sticking brake or a faulty injector has been responsible for throwing good judgment off balance.

Fortunately such incidents will soon be a thing of the past as a result of a recent ruling of the Interstate Commerce Commission that devices must now be adopted for accurately measuring the water level in the tanks of locomotive tenders.

It must be said to the credit of a number of railroads that they did not wait until such installations were mandatory. Recognizing the value of using something safer and more convenient than a broom handle or measuring rod lowered down through the manhole opening, they have produced a variety of mechanisms, some crude and hardly better than the old method, and others which give very precise readings. In all cases, however, thought has been given to the cardinal rule that delicate instruments have no place on a swaying, pounding steam locomotive.

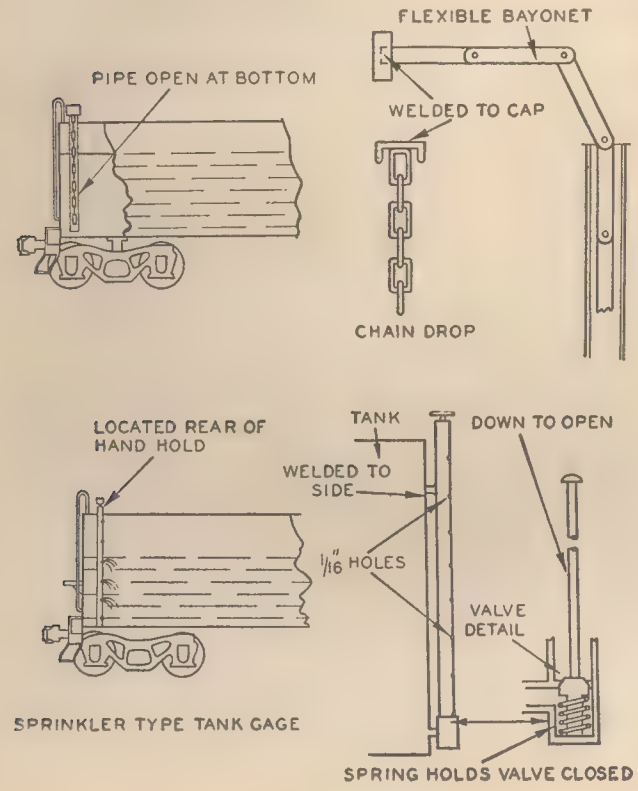
As enginemen are concerned only when the water is running low, some roads felt at first that a valve in the water leg, a foot or two above its base, was all that was needed. Not until this spigot failed to deliver water was there any need for concern. But experience soon showed that for determining advantageous water stops it was well to have a wide range of readings available. With this in mind other valves were applied at higher levels.

Unfortunately, despite the baffle plates

which break up major surging inside the tender tank, there was still too great a movement of water to secure anything like an accurate check. This situation led to a partial return to the measuring rod. In the top of one of the water legs at the gangway a hole was cut, into which an old flue or section of pipe was inserted. Properly braced and of such length that it barely cleared the bottom of the tank, it provided a column in which water could rise to a level without at the same time fluctuating as violently as that in the open reservoir. Because the overhang of the cab prevented the use of a long measuring stick, a flexible bayonet or chain was attached to the cap set at the top of the pipe.

SOME roads have made use of another type of tube gage known as a sprinkler pipe. This is a ¾-inch column attached to the side of the tank, generally to the rear of the vertical handhold at the left gangway. In it are drilled a series of small holes which discharge water away from the steps, or at right angles to the track. The valve, which has a soft leather seat, is located at the base and held in closed position by a spring. It has a long extension running through the pipe and when the head of the rod is forced down, the valve is unseated, allowing water to enter from the tank. Seeking its level it jets out through the holes, giving a fairly correct reading. During daylight hours observations are made without difficulty, but at night a lantern is needed. Another poor feature is the vulnerability of the mechanism in sub-zero temperatures where, unless complete drainage occurs quickly, freezing of water above the valve will make the device inoperative.

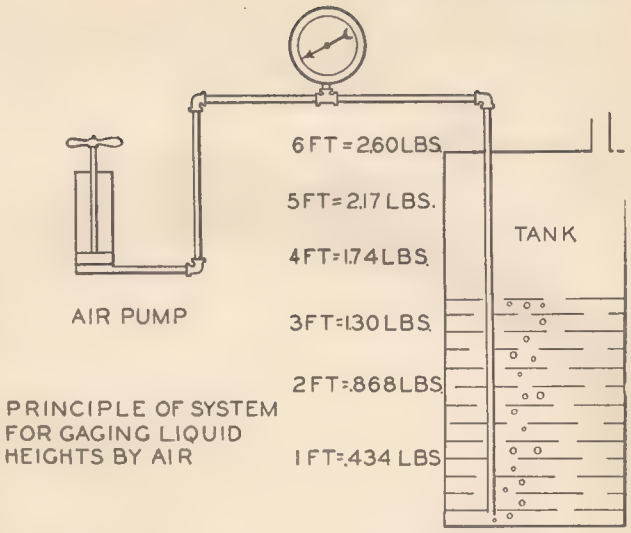
A variation of the sprinkler pipe design makes use of a globe valve inside the tank, which may be operated by an extension running to the top of the water leg. This provides better drainage and easier reading inasmuch as the valve can be opened and the discharge noted from the fireman's seat in the cab.



Still another water tender gage, and certainly the most scientifically designed to date, indicates the exact amount of water (registered in gallons) in the tender at all times. This is a godsend to an engineer who, drawing one engine today and another tomorrow, can no longer know the exact peculiarities of his machine. For even locomotives of the same class have varied characteristics. One may steam freer than another, use more water, show greater speed, or develop more power. Even such factors as differing wind resistance enter into the performance picture. Thanks to the gallonage gage, faulty guess-

work resulting from these conditions is eliminated.

The device is ingenious. Operated by air, it makes use of the simple fact that for every foot of water-depth a pressure of .434 pounds per square inch is developed. In other words a diver working at a depth of one hundred feet must be provided with at least 43.4 pounds' air pressure to open control valves against the external pressure of the water. In a locomotive tank, which is generally around six feet in height, something less than three pounds of air would be needed to offset water pressure when the reservoir is full, and .434 pounds less for each progressive foot of liquid drained off.

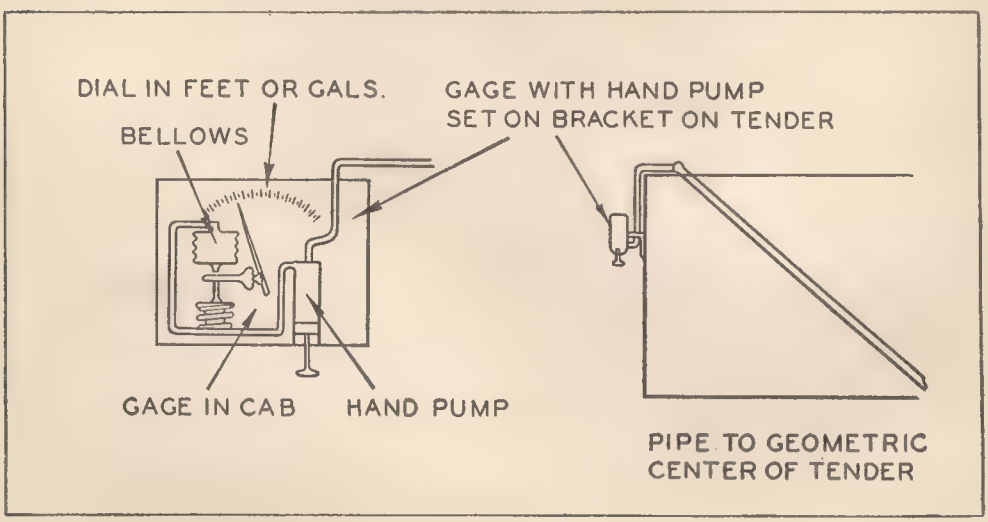


PRINCIPLE OF SYSTEM FOR GAGING LIQUID HEIGHTS BY AIR

Our drawings illustrate the general arrangement of the mechanism which converts this physical property of water into a tangible reading on a low-pressure gage.

Air is first provided either by a small hand pump or the main reservoir. (In the latter case it must be cleaned by passing it through a filter and its pressure has to be reduced to around five pounds.) This air flows back to the tender through a small pipe and a flexible hose. In the former is a tee connection to which the low-pressure gage is attached. The line then continues on into the tank, the open end generally terminating about two inches above the bottom at the geometric center of the reservoir. The slight elevation prevents rust and other foreign matter from plugging the line, and the central location provides an average water depth regardless of water surges or shifting of the liquid due to grades.

Pressure of air in the line will, of course, increase until it equals the pres-


DIAL IN FEET OR GALS.
BELLOWS
GAGE WITH HAND PUMP SET ON BRACKET ON TENDER
GAGE IN CAB
HAND PUMP
PIPE TO GEOMETRIC CENTER OF TENDER

sure of the load of water, after which excess air will escape and bubble to the surface, leaving a constant reading until there is a change in water level. It is no trick to transpose water pressure into "gallons" on the gage dial; thus the story of the water supply is told continuously, and accurately, from one end of a run to the other.

In looking over the drawings one might feel that a great deal of air must escape through the end of the pipe and into the water. This is not true. As a matter of fact, when the supply of air is shut off from the reservoir or pump after the tank has been filled, both pressures keep a perfect balance just as long as there are no leaks in the piping. As the water drops in height, the trapped air having the greater pressure simply escapes in driblets—a procedure which continues until the tank runs dry. Naturally the air supply must be brought back to top level again whenever the engine pulls up to the plug. Bear in mind, too, that the reducing valve is very small, allowing the escape of but a few bubbles a minute.

INFORMATION BOOTH

Each month the Lantern Department prints answers to rail questions of general interest, submitted by our readers. We do not send replies by mail.

1

WHERE *will the new Diesel locomotives recently ordered by the Great Northern be used?*

The "Big G" is adding twelve Electro-Motive road Diesel passenger and freight engines to its roster, bringing its fleet of Diesel-electrics up to 157 locomotives. Five 6000-horsepower, four-unit freight motors will be used between Havre, Montana and Appleyard, Wash.; one 4500-horsepower, three-unit freight between Laurel, Montana and Hillyard, Wash.; and two 3000-horsepower, two-unit freight engines will be employed on the Butte division in Montana. Two 3000-horsepower, two-unit passenger locomotives will replace 2700-horsepower Diesels for the Gopher and the Badger, St. Paul-Duluth service. Two 1500-horsepower one-unit passenger motors will be added to the two 2700-horsepower Diesels now operating between St. Paul and Duluth; the resulting three-unit locomotives of 4200-horsepower each, will be used on the *Oriental Limited* and the *Fast Mail*, Skykomish to Seattle, and on trains 459 and 460 between Seattle and Portland. The *Oriental* and the *Fast Mail* will then be Diesel-powered throughout their St. Paul-Seattle runs, except for use of electric engines on the seventy-five miles of electrified line in the Cascades. With the exception of one of the 6000-horsepower freights, which was received in September, the total number of locomotives, costing about $5,110,000, is scheduled for delivery in October, 1948.

2

PLEASE *describe the new yard which the Baltimore & Ohio is constructing in Cincinnati?*

Designated Mill Creek Yard, this 2,258,000-dollar facility will have 16 tracks with a total capacity of 1200 cars, together with repair tracks having room for 71 cars. Connections will be provided at Cincinnati Junction, north end of the yard, for direct movement between the Toledo division and the line to St. Louis.

3

ABOUT *six miles west of New Haven, at a New York, New Haven & Hartford substation along the electrified right-of-way, I noticed eight large housings,*

enclosing some sort of electrical "gadgets." Can you tell me what this apparatus is?

The "gadgets" in question are capacitors. This installation at Woodmont tower containing 1694 capacitor units and mounted on racks in weatherproof steel houses, is the largest concentration of these devices anywhere in the world. Capacitors are electrical instruments which make it possible to improve the power factor of the alternating current electric traction system by absorbing useless current and returning it to the line as useful current. This has resulted in improved voltage at the east end of the New Haven's electrified zone, an increase in the effective capacity of the power supply, and in operational savings of 75 dollars a day.

The power factor of this electrified line, previous to this installation, was controlled by operation of rotating machinery. While this equipment did a good job, the machines required a great deal of power just to keep rotating. Being static, the new capacitors operate at high efficiency. Since the demand for electric power varies a great deal, depending on the number and weight of trains and their location, there are occasions when, due too much correction of power factor by the capacitors, the line voltage might be too high. To prevent this, the capacitors were arranged in four pairs of banks, each pair controlled by a circuit breaker. If the line voltage

L. A. McLean, Box 1608, Georgia Tech, Atlanta, Ga.

Through Southern freighter shot at Columbia, S. C., with Number 4562 in the lead. Baldwin-built Mikado was rolled out of the shops in 1913, has a tractive effort of 53,900 pounds

Fourteen 0-6-0 tank engines, surplus equipment for the homebound U. S. Army, were sold to Britain's Southern Railway and have already swapped colors. Replacing the B4 class, 0-4-0ts like Number 147, *shown at right*, they entered service on Southampton's docks; unlike Liverpool and London quays, these are railroad-owned. *Below:* Number 70, first Army converted; series will run Number 61-74

David G. Hunt, Acadia Camp, Vancouver, B. C.

starts to rise too much, one of these circuit breakers automatically opens and cuts out two banks of capacitors. If the voltage continues to rise, another circuit breaker opens, cutting off another pair of banks and so on until all the capacitors are automatically disconnected from the line. If the voltage starts to drop below a certain point the circuit breakers automatically close in reverse order and bring the capacitors back on the line to do their job. Each of the 1694 units is enclosed in a little steel case filled with oil and tightly sealed.

The capacitors consist of large numbers of alternate thin sheets of paper insulation and aluminum foil and are mounted on racks in eight weather-proof steel houses, each about 20 feet long, four feet wide and twelve feet high.

4

PUBLISH *data on the recently developed load-compensating air brakes designed to equalize braking power on both loaded and empty freight cars. I understand that these have been put to exhaustive tests by the Mechanical Section of the AAR.*

Starting on July 15th, the AAR conducted a series of tests of this brake on the Sang Hollow Branch of the Pennsylvania, between Johnstown and Pittsburgh, to determine whether or not they are suitable for general use on the nation's railroads. Use of lightweight alloy steel cars in railroad freight service has increased the variation between the weight of empty and loaded cars and stimulated a demand for brakes which will apply the requisite braking power regardless of the weight of the car and lading. The load compensating brakes are automatically controlled by springs which compress or expand and change the braking ratio as the load of the car varies.

The tests were made with a special train of 150 new lightweight hopper cars of the Illinois Central equipped with the new brakes, and the train was operated under varying conditions, with its cars fully loaded with coal, partially loaded and empty, on level stretches and on mountain slopes. Five laboratory cars equipped with recording instruments were distributed at intervals throughout the train to check brake performance.

Data as to the outcome of the trials

Packaging — the gimmick that's boosted consumer sales — hit Chicago-Memphis shippers last summer. Presenting *Trailerails*, Illinois Central offered all-aluminum containers for 1c1; boxes which could carry up to 20,000 pounds, be shifted easily from truck trailer to standard flatcar
Illinois Central Photo

has still not been released as we go to press.

5

THE *Interstate Commerce Commission has authorized construction of a railroad in Texas to serve the proposed twenty-million dollar Alcoa Aluminum plant near Point Comfort. Give details.*

Approved by the ICC on June 17th, the line will run from Point Comfort to the town of Lolita, a distance of twelve miles, where it will connect with the main line of the St. Louis, Brownsville & Mexico Railway, a Missouri Pacific subsidiary. The commission has been advised that the aluminum company will finance the railroad.

6

PRINT *information on the "Trailerails" which the Illinois Central began using this summer to carry LCL shipments.*

The "Trailerails" permit handling of package shipments in all-aluminum containers with built-in equipment, with quick interchange between auto truck trailers and standard type railroad flat cars. IC experimented with a limited amount of equipment between Chicago and Memphis. The containers are manufactured by the Reynolds Metals Company of Louisville, Ky. LCL shipments are placed in a container at the shipper's loading dock. The container, loaded on a special trailer frame, is then transported by truck between loading docks and freight yards where it is shifted mechanically to a flat car by built-in hydraulic lifts and a winch and cable arrangement. At destination, through the same self-contained mechanical contrivance, it is returned to a motor trailer and delivered direct to the doors of the freight receivers. Capable of taking shipments up to 20 thousand pounds, each container is twenty feet long, eight feet wide and eight feet high, with a capacity of a thousand cubic feet.

7

SUPPLY *details relative to the Pennsylvania Railroad's new train-telephone installation on the 104-mile freight line between Columbus and Sandusky, Ohio.*

Pioneering in modern train telephony on the Bel-Del division in New Jersey, in 1944, and with a later installation on its four-track main line between Harrisburg and Pittsburgh, the Pennsy now has the train telephone system in operation on 1181 miles of main tracks. A total of 345 passenger and freight locomotives, 129 cabin cars, and 61 control towers are equipped with the most extensive continuous telephone communication system in the world.

The Columbus-Sandusky line is an important artery for coal trains moving from the mines to the Great Lakes for transshipment, and carries a traffic of thirty freight trains daily during the lake season. By increasing the ease of communication among trains and between control tower operators and trains, the train telephone will provide for more efficient dispatching and fewer train stops.

Thirty-one modern steam freight locomotives, 28 cabin cars, and ten wayside control towers are equipped with the train telephone on this line. Twenty years of research and development have gone into the train telephone, which utilizes high frequency alternating electric current on two channels. Transmission paths are confined entirely to the railroad property.

8

WHEN *was the first electric mine locomotive introduced in the United States?*

In 1892 the Thompson-Houston electric locomotive, *Charlie Smith,* was put into service in the Union Pacific Coal Company's Number Seven Mine, Rock Springs, Wyo. This locomotive, using 500-volts direct current, hauled 30 to 35 cars with an average capacity of one and one-half tons, a distance of one mile to the tipple. With an adverse grade of one and one-half percent for over half the way, the performance of this early locomotive was a remarkable one. The locomotive weighed nine tons, had a six horsepower capacity, a speed of eight miles per hour and a gage of 30 inches.

Charlie Smith was purchased from the North West Thompson-Houston Electric Company of St. Paul, on May 16, 1892, and remained in operation until 1926.

Floodwaters complicated rail operation in Portland, Ore. area last spring when Pacific Northwest rivers rampaged. Espee yard goat shunts freight through Union Station, while switcher works head end; slow pace saved fires from being washed out

Samuel H. Lewis, Beaverton, Ore.

Demonstration of the first electric locomotive, invented by Werner von Siemens, was made at Berlin's Industrial Exhibition in 1879. Narrow-gage electrics went into mine service in the U.S. in 1892, when the *Charlie Smith* began hauling Wyoming ore ***(see Item 8)***

Charlie now rests in state on a rock and flower-covered foundation before the Old Timers' Building in Rock Springs. The aged locomotive was officially initiated into The Union Pacific Coal Company Old Timers' Association with elaborate ceremonies on July 19, 1929.

9

PRINT *details of the race between Patrick Dailey, crack engineer of the Vandalia's Indianapolis-Terre Haute flier, and Harry McGee, driving a Cadillac, back in 1913.*

This speed contest was a grudge fight between two types of transportation. The Irish engineer boasted that nothing on wheels could beat a train with an able crew and a strong-backed fireman who knew how to spread coal. McGee did not agree. He knew automobiles and he was tired of Dailey's boasting. Plans were drawn for a race, when he accepted the engineer's challenge; judges were appointed and every detail was arranged.

Train and Cadillac left Indianapolis at precisely the same moment. Railroad supporters crowded the coaches of the Pennsylvania's Vandalia flyer while motor car enthusiasts parked along the road and behind the McKinley Inn west of Putnamville, where legend says Lincoln once hung his hat. McGee's Cadillac was weighed down with sandbags and a giant Negro, sitting on top of them. At Terre Haute men eagerly awaited the arrival of the contestants.

Dailey was never late. A dot showed on the highway at the same time the tracks began to hum. Cheers arose from the crowd of spectators as McGee took the last turn, skidded to a stop and stepped on to the station platform in plenty of time to greet a crestfallen engineer. The Cadillac had covered the seventy-two miles in seventy-two minutes.

10

PLEASE *identify the following initials, which I have seen on railroad freight cars: LE, WRT, CDX and QLSX.*

There is no rail equipment bearing the classification marks "LE." You stated in your query that a coal car bore these initials. It was probably a Lehigh & New England hopper car that you saw, carrying a red bullseye herald and the letters LNE. This is an anthracite carrier, serving Eastern Pennsylvania, Northwestern New Jersey and the Maybrook-Poughkeepsie Bridge Gateway of Southern New York, and now furnishing freight service only.

Warrior River Terminal Company of Ensley, Alabama, in the Birmingham district, affiliated with the Federal Barge Lines of the D. of C. WRT to designate equipment. Cudahy Packing Company stock cars carry initials CDX, and Cudahy reefers letters CRLX. Quaker City Line Stock Express stock cars bear marks QLSX.

11

GIVE *a brief history of the Escanaba & Lake Superior Railroad.*

Incoporated under laws of Michigan, November 17, 1898, as the Escanaba & Lake Superior Railway, the E&LS was reorganized on February 12, 1900, under its present title. At Channing, connection is made with the Milwaukee Road, and that company gained the right in 1931 to use the line from Channing to Escanaba for thirty years. Track extends from Wells to Channing, 62.84 miles, and from Flat Rock to Escanaba, 3.88 miles, for a total of 66.72 miles of main line trackage, all in the upper peninsula of Michigan. In addition, there are 4.60 miles of industrial tracks, and 23.65 miles of main line sidings and spurs, giving a total of 94.97 for all mileage.

Track is standard gage, laid with 60 to 90-pound rail. Equipment consists of three coal and two Diesel engines; two passenger cars, one a combination coach, numbered 99, the other, a railmobile, numbered 22; 177 freight cars; and five pieces of miscellaneous, non-revenue equipment, including a fire car. Connection is made with the Chicago & North Western at Escanaba; with the Soo Line at North Escanaba; and with the Milwaukee at Channing. Headquarters are at Wells, Mich.

12

KINDLY *print information on the British Railways' current track renewal program.*

The British Railways has authorized a plan for replacement of roadbed during 1948, amounting to complete renewal of 1226 miles of track and a partial renewal of a further 550 miles. Greatest possible use is being made of the prefabricated method of track relaying. New sections of track up to 60 feet in length are assembled beforehand and taken out to the site of the work. There, cranes lift whole sections of the old iron out, load them on trucks, and drop the new sections of track into position.

M. B. Cooke, 350 Princeton Ave., Jersey City, N. J.

Fifty percent of Escanaba & Lake Superior passenger runs—two daily—is managed by Railcar 22, shown above in Escanaba shops

Locomotive of the Month:

Custom-Built Diesel for the P. R. R.

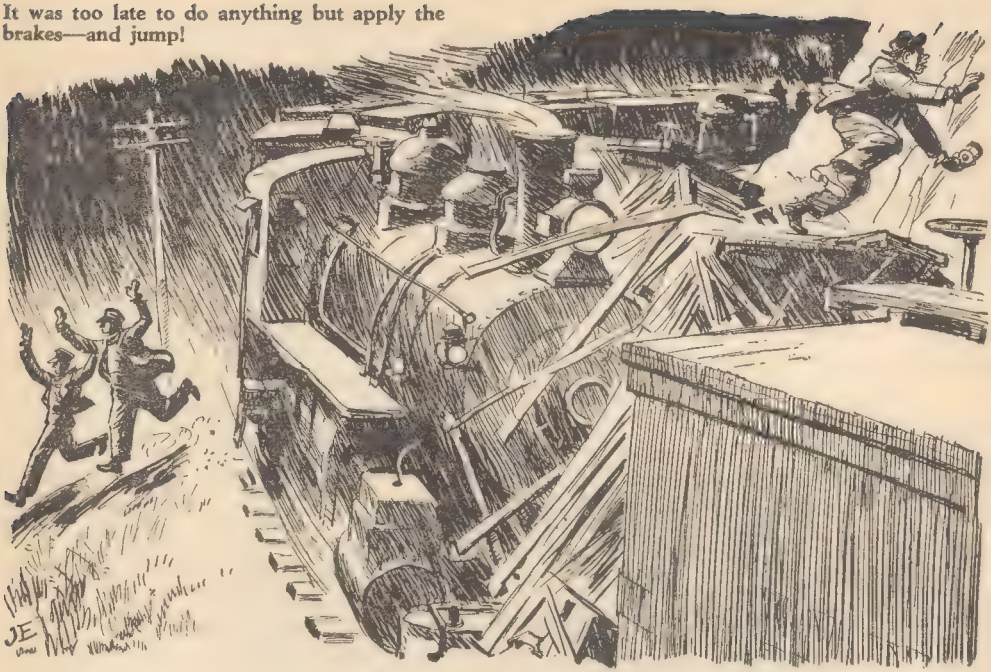
ESSENTIALLY a mass-production proposition, the Diesel Electric locomotive has, until now, conceded no more than a couple of layers of vari-colored paint to the purchasing railroads' yen for self-expression. But out in Baldwin's Eddystone, Pa., plant the other day rolled two hundred and thirty-eight feet of three-

unit passenger power which was as representatively PRR as though it had carried a Belpaire firebox. The yacht prows of the "A" units, the high and slightly projecting headlights, and the sharply faired-in ventilator grilles were what did the trick—gold striping and keystone emblems were superfluous. Number 5770's six 1000-horsepower, supercharged engines and 561 tons of engine-weight produce 187,500 pounds' starting tractive effort, but her custom-styled cabs may well be the means of starting something even bigger.

Surprise development. Early in August, Westinghouse announced that it had acquired controlling (21 percent) stock ownership of Baldwin. This meant that the big plant in Eddystone, Pa., would go all-out for electrically-propelled locomotives, following the Alco pattern. Only major builder still producing steam power: Lima-Hamilton

Courtesy Pennsylvania Railroad

It was too late to do anything but apply the brakes—and jump!



Accident at Winslows Crossing

By WILLIAM H. McMASTERS

EVER since railroads began operation, there have been accidents and they will continue to occur. They are the bane of railroading and only constant vigilance can help to reduce the number. When I was night telegrapher at Norwood Central, on the New England line, more than a half-century ago, such an accident occurred. One of my regular duties was to receive a message from the Boston office of the train dispatcher giving information to the conductor of a fast westbound freight that passed my station about nine o'clock. This train made up in the Boston yards and headed for Hartford, and there was no other way of getting word to the conductor about what car or cars were to be picked up at Walople Junction. Some nights there would be no pick-up and other nights there might be one or two cars. My message gave instructions and the number of the cars. So, if I received the message, I would step out and slow down the train with my white lantern in order not to delay them with a full stop. The conductor would be on the rear of the caboose to grab the message. Then he would signal his engineer, and the train would speed up at once and be on its way.

One night, around eight-thirty, a freight on the eastbound track, the Franklin Local, had backed over onto the westbound at Winslow's crossover. They were off their regular schedule, due to many delays, and had backed over to give clearance to an important express passenger going east. This was perfectly proper procedure. Before backing over to take up room on the westbound tracks, they had sent their head brakeman up toward my station, to stop any westbound trains. Winslow's is about a mile and a half or more west of

Norwood Central. The curve is a bad one on down grade going west.

So far as my duties were concerned, I had no more to do with the train at Winslow's than with running the dispatcher's office. On this particular night, I had a message for the westbound fregiht. and as usual, I stepped onto the platform ready to hand the paper to the conductor. When I signalled the engineer, as I had hundreds of times before, I didn't see the flagman from the eastbound freight, who was posted about a hundred yards further down the platform. This was in accordance with the rules then in force, that all flagmen must keep away from railroad stations when posted, thus avoiding any possibility of confusing an engineer with too many lights.

While I was signaling the on-coming freight, the passenger on the eastbound track went by and I noted the time so that I could have it for the dispatcher. As usual, the engineer caught my lantern, gave a short toot to acknowledge it, and then came along. He craned his neck in the cab and waited for the okay from the conductor.

He never saw the red light of the head brakeman from the train that was lying around the curve. But he did see me where he had always seen me, and he got his signal from his conductor and pulled more steam and was on his way, entirely unconscious of the fact that a long freight was now getting back onto the eastbound mainline, about a mile and a half further along.

What the protective flagman thought, when he saw the train that he was supposed to stop, suddenly begin to pick up speed and the big engine go past him at thirty miles an hour, I never found out. Two minutes after leaving the Norwood Central station, the heavy engine of the westbound freight, with sixty loaded cars behind it, plowed right into the middle of the Franklin Local, just as it was taking the crossover to get back onto the eastbound tracks.

I heard a wild blast of the engine whistle, and then the awful crash. For that kind of a noise, right on top of a shrieking whistle, there was only one answer. Inside of five minutes, the station was filled with excited railroad men who came rushing from every section of the town. Others had put on their working togs and were on the way to the shops to man the wrecking train. I didn't wait for anybody to tell what had happened. I gave the story to the dispatcher and he checked it, instantly. Giving me the train number of the Franklin local, he said: "Find out if there are any casualties."

The engineer, as soon as he rounded the curve, had seen what he was up against. It was too late to do anything except shut off his steam, apply all the brakes he could, let off a blast on the whistle, and then jump, along with his fireman. Had either of them stayed in the cab a second or so longer, he would have been killed instantly. The big engine was torn from the tender and thrown a hundred feet from the rails. One brakeman on the westbound freight was killed and one on the eastbound badly injured. Both tracks were blocked until eight o'clock the following morning, in spite of the heroic work of the wrecking crews.

Had the westbound train been only two minutes later in going by my station, there would have been no wreck even if the flagman had been sound asleep, for his train would have cleared the crossover. Just those few minutes of time would have avoided it entirely.

I never learned on whom the blame was finally placed. One explosive old-timer in the railroad business told me that in his opinion: "That's a hell of a place to have a crossover." But when we consider that no other wreck had ever occurred there and none since that night, it may be that he was just sounding off. If railroad men would always tell in advance when an accident was about to take place, there would never be any. This one, like many others, just came along and happened.

Out of the Car Shop:

Jeffersonian Recreation Cars

Photos from Pennsylvania Railroad

NO SCHEMATIC drawing could do justice to the *Jeffersonian's* recreation cars, permanent feature on the Pennsylvania's all-coach streamliner between New York, Philadelphia and St. Louis. What appears in blueprint to be a clutter of small areas is actually a careful division of the 85-foot coach to provide utmost comfort, privacy and entertainment for children, parents and the "bored" traveler. You can take your pick: newsreel theatre, reading-writing-game lounge, bar-buffet or even a fling at the pinball machine. Meanwhile, a stewardess is amusing the toddlers in a sound-proof, glassed-in nursery.

Pennsy engineers teamed up with Ray-

mond Loewy Associates on the layout of the three cars ACF constructed. Side walls cambered inward from window sills to a curve at ceiling level create a sense of spaciousness. Lights in the sunken buffet-lounge demanded special treatment to go with the soft music, so they got it—pin-point lights focused on the eight table tops, illuminated lucite rods marking the 5-inch step down to the lower level. Richly-executed murals add distinction to both buffet and reading-room walls; aluminum chairs provide mobile furniture; loudspeakers, wide windows, air-conditioning through ceiling panels. . . anyway you look at it, from roller-bearinged trucks to stainless-steel sandwich buffet, Pennsy's all-in-one means pleasant riding.

Time out for diversion. *Jeffersonian's* overnight run gives Pennsy officials 20 hours and 25 minutes to sell rail travel to passengers; photos left and right show how they're doing it. To supplement the charms of air-foam coach seats, three 85-foot recreation cars built by ACF have been added, one per train. Sectioned within each are a newsreel theater, cocktail buffet *(top left)*, well-stocked playroom *(top right)*, and spacious reading-game room *(right and below)*

Photos by the author

The Callboard:

Centerville & Southwestern

By WALTER A. LUCAS

THE HILLS of northern New Jersey are traversed by a number of trunk lines well known to thousands of rail travelers, shippers and fans living miles beyond the limits of the Middle Atlantic States. Nestling among these carriers, however, is a small pike publicized only by the six thousand adults and youngsters who've ridden over its main line since the road was formally opened early in May, 1940. Though it links no community with a major railway, still in its own way the Centerville & Southwestern is a mighty busy little shortline. For

Lost in the woods? No, Engineer Henry Becker and crew *left* are just giving Number 1501 a final check before highballing for Centerville . . . and home

Above: **Rolling east through Horseshoe Curve with a maximum consist. In spring and fall, trains run more often to handle bumper crops of inquisitive youngsters**

to its chores of carting seeds, fertilizer, drinking water for the workmen and salt for the cattle in season, the C&S adds the job of carrying visitors over its one and one-fifth miles of light iron from spring to late November. And all the while it is at work advertising "Becker's Grade A Milk."

The Centerville & Southwestern right-of-way stretches through a 900-acre dairy farm in the borough of Roseland, Essex County, New Jersey. Owner Henry E. Becker, member of the firm of Henry Becker & Son, Inc., raises hogs, cattle, corn and potatoes, cuts timber, and in addition manages one of the largest dairies in this section of the state—a dairy which has been serving the public with milk and milk products continuously since 1880, except for one stormy day during the blizzard of '88. Becker's "ship by rail" policy means three solid carloads of bottled milk and cream—about 30,000 quarts—are transferred daily from the pasteurizing and bottling plant in Sussex County to Orange, N.J. via the Lackawanna. Locally, Becker delivers milk to more than 22,000 families, many of whom have come to know him because of his private road.

Henry Becker planned and built the C&S originally as a hobby. Construction was started on its right-of-way in May, 1938, but it was two and one-half years before the finishing touches on the track were completed. That was November, 1940. Yet six months earlier a specially-built live steamer, Number 1501, made what has since been called the C&S's first run, although old 1500, a gas buggy, had made many previous trips.

By that time word had gone round about the outdoor miniature railroad. Visitors started coming, and as Becker himself says, "they've been coming ever since. Many of them are now good friends, among them John Draney, famous Lackawanna engineer who gave us many helpful pointers about the art of running an engine. It was also one of these visitors—a high school principal from East Orange,

It took gallons of Becker cream to build this baby. One-sixth the size of DL&W 4-8-4s, she's the real thing, from safety valve to working air pump

Hog Pen Cut, *left*, ruling grade on the Centerville & Southwestern. Although original surveys called for a 2.6 percent maximum slope, trackmen were forced at one point to utilize a 3.2 percent rise

Below: Closeup of tracks at the home terminal. Roadmaster William Hawk is mighty proud of his small-scale setup: 8-pound rails laid 9 7/16 inches apart, spiked to 3-inch-square cypress ties, and the whole track set in four inches of solidly-tamped rock ballast. Note puzzle switch in background

N.J.—who suggested that the railroad might be used to good advantage for our business. We took his advice."

The C&S now performs admirable service in the field of customer relations. It works this way. Each person who visits the farm for a trip over the railroad is given a special ticket, one-half of which he must fill out with his name and address. The firm keeps this part, later turning it over to the salesman whose route passes the given address, so that he may try to solicit the youngster's parents—four-fifths of the riders have been children—as steady customers. The second half, which carries advertising for Becker's milk, is left with the child as a souvenir. For adults, the routine is the same.

The busiest season for the C&S occurs in the late spring and early fall while the schools are in session. During the past spring two thousand pupils rode the pike and a thousand more were expected by the time Becker's closes his guest book for 1948. The guest book was an idea used from the very beginning, and only the

Class calls on the pigs who didn't go to market . . . yet. The C&S makes the hog pen its first stop; then on to The Plains

war restricted the signatures to six thousand. For from the outbreak of the war until 1946 all equipment of the C&S was held in storage.

BECKER'S road owes its name partly to the days when Roseland was known as Centerville, partly to the southwesterly direction which its route takes. When it came to actual construction, Becker and his assistants did the work themselves. Early equipment, however, was another matter. The pride of the road's three engines is Number 1501, a live steamer built and assembled in Bridgeport, Conn. in 1940, duplicating in design the 4-8-4s which haul heavy passenger trains for the Lackawanna Railroad.

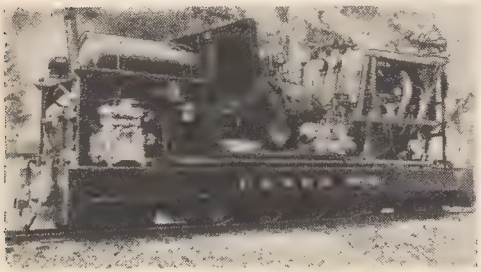
Hobart B. Ayers, former president of the H. K. Porter Company and associated with most of the American Locomotive Company's plants at one time or another during his long locomotive-building career, prepared the designs and specifications for Number 1501. With Joseph B. Ennis, Alco's senior vice-president, as consultant, Ayer had an all-welded boiler constructed for the locomotive at Alco's Dunkirk shops. This boiler was the second all-welded locomotive boiler built in the U.S. Tested for 450 pounds, it carries a pressure of 150 pounds to the square inch.

One-sixth the size of her Lackawanna sisters, Becker's Northern engine is nineteen feet, eight inches long, and together with the tender weighs three and one-half tons in working order. Tractive power is rated at 969 pounds, although experts say it tops one thousand pounds. Norma-Hoffman double-row self-aligning ball bearings are fitted to all twenty-eight journals, so she rolls with little effort. The drivers have cast steel centers with regular locomotive steel tires. Other wheels are of forged tire steel.

Complete to the details of two cross-compound air compressors, a steam turbine generator and lights, air bell ringer, sanders, a blower, two injectors, independent engine and train-line brake valves and duplex air gages, Engine 1501 has a maximum speed of twenty miles per hour with a 15-car consist. There's a hand brake on the tender. Water for Centerville's locomotives is the best that the Beckers can provide—soft rain water collected on the shop roof and piped into a discarded stainless-steel milk tank. This eliminates scale entirely.

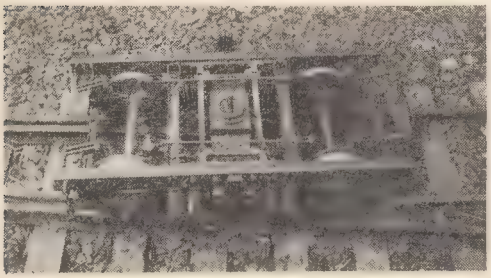
The C&S "Diesel"—Number 1502—is a gasoline-powered job with a four-speed transmission coupled by a drive shaft to a reversible angle drive mounted just back of the rear drivers. The four-cylinder motor, transmission and angle drive are con-

Tools of the trade. Down view of hogger's seat brings air gage, speed recorder, brake, and even a spatter of coal into focus



C&S "Diesel" is powered by 4-cylinder gasoline motor, designed by Hobart Ayers

Look, no hands! Alco Vice-President Joseph B. Ennis watches C&S brakeman make a joint. Safety chains are also required



Four-wheeled truck, standard model for Becker's new passenger cars

nected through a jack draft to each of the four driving axles by a double-row roller chain. A power takeoff operates the three-cylinder air compressor. With a 1375-pound weight placed on each driving axle, this 4-8-4 stretches twelve feet in length, having all the essential equipment of a real locomotive. Designed and built by Mr. Ayers, this engine is used principally to haul freight and ballast and to help out when traffic gets heavy. While her tractive effort is about the same as Engine 1501, the Diesel is a massive machine for the C&S track and she has a top speed limit of ten miles an hour.

The rolling stock consists of two designs. Six older cars were constructed to represent six-wheel-truck Pullmans with flat bodies. These cars have trucks that are fully equalized, properly sprung and have swing bolster action with clasp brakes and roller bearings. Two cars are equipped with full cushion, parlor-car type seats which carry four persons each; three have leather bucket seats carrying six people; the sixth has two large air supply reservoirs.

The second type was designed and built at the Centerville & Southwestern shops. Having all-welded steel underframes with flat bodies, these cars are equipped with plywood bodies and divided into four side-door compartments which carry sixteen children in all. There are nine cars in this group—four of them still under construction, to be numbered 14-17 when completed—the new trucks four-wheeled equalized, swing bolstered with all coil springs and clasp brakes. All wheels turned from forged steel blanks are six inches in diameter. The only castings on these trucks are the journal boxes which are fitted with needle bearings for a seven-eighths by one-and-one-quarter-inch axle.

All cars have a push-pull type spring draft gear and hand brakes. Air equipment consists of a Westinghouse relay-emergency valve, conductor's valve and reservoir, besides the necessary pipe lines. A National Pneumatic door piston is used as a brake cylinder. Standard length of the cars is fourteen feet, six inches over

the couplings. Miniature "glad-hand" air-hose couplings are used between cars, but regulations also require safety chains.

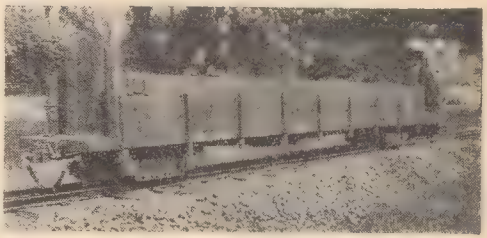
Other important pieces of equipment are two work cars. Granddaddy of all C&S cars is Number 1, which "built the line." Constructed entirely of wood above its trucks, this gondola has often carried over a ton of cracked stone. Number 13, one of the most recent all-steel underframe construction, has a capacity of 2,500 pounds. Both are equipped with air brakes.

LIKE a trip over the Centerville & Southwestern? Well let's take one then, just in case the first snowfall should bury the C&S right-of-way before you get a chance to strike out for Roseland, N. J. while the 1948 holiday season is still open. You'll be ready for next year anyway.

Going through the modern shop to find Engine 1501, you'll notice two lathes, a milling machine, drill press, welding equipment, a drop pit and an overhead traveling hoist. You may see some work being done which does not pertain to the road since the shop handles general machine repairing for the farm also. After meeting Master Mechanic and Assistant Ralph H. Leonard, you climb aboard the tender, careful not to sit on the poker. Soon Leonard backs her down to the turntable, where she is headed in the right direction and then reverses up to the string of eleven to fifteen cars.

Having tested the air, the engineer lets her roll past the section tool shanty to the Centerville Station, halting with the engine at the far end of the platform. Shortly afterward a group of passengers—varying in number between twenty and one hundred fifty children and several grown-ups—are led aboard the train by a guide. While Conductor James J. Giltzow is getting his charges settled and the tickets collected, you examine the track ahead. The rail is standard eight pounds to the yard, laid to a gage of nine and seven-sixteenth inches and spiked to three-inch-square cypress ties with a maximum spacing of twelve-inch centers. The entire line

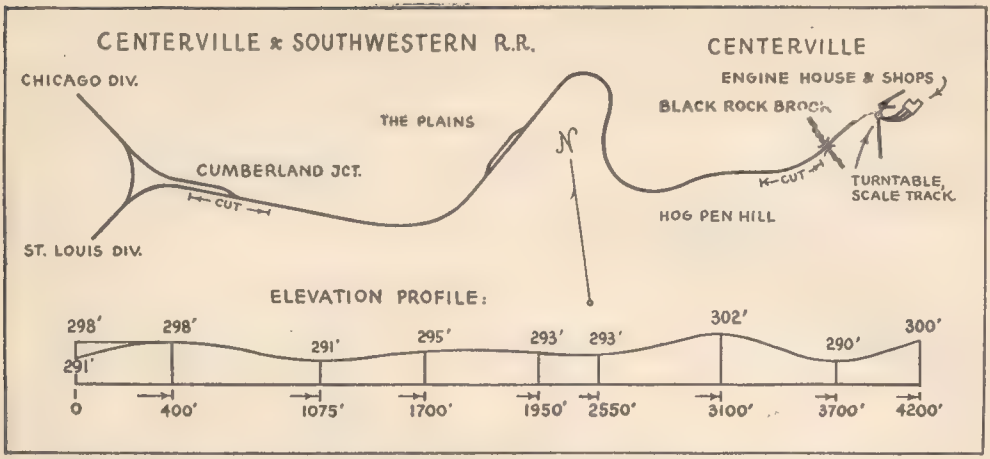
Timmy, mascot and pilot of the C&S, momentarily swipes his master's seat. Timmy often runs as first section, with the engine crowding his heels



Number 13 is most recent addition to work equipment, can tote 2500 pounds

Becker, Sr., and the *Beetle*. Rebuilt from No. 1500, E-1 draws juice from storage batteries, hauls inspection gang's trailer

Number 1501—pride of the pike—eases into Centerville, end of the run



Becker's right-of-way, including sidings, extends 1 1/5 miles through dairy lands. Map above shows its route; scale below indicates land elevation and distance from Centerville

including sidings has a sound rock ballast of no less than four inches of three-quarter-inch cracked stone tamped solidly. The man responsible for the good condition of the track is William Hawk, Roadmaster and Bridge and Building Superintendent.

About this time the hogger gets a highball from the rear end and lets the train drift slowly out of the station. Number 1501 rides smoothly over the Black Rock Brook bridge and he opens her up for the long pull up the 3.2 percent rise to the top of Hog Pen hill, the ruling grade. The 4-8-4 has to work, but she does it with ease. Just out of the cut Engineer Leonard stops his train so that the children can get a good look at the pigs on the right. Over on the left a potato field is making good progress.

One special feature of the C&S, not to be overlooked, is Timmy, mascot of Becker's railroad and farm. This coal-black Newfoundland dog of uncertain age insists upon galloping ahead of Engine 1501 on all of her runs. As Number 1501 can make about twenty miles an hour, the dog has sometimes to run for his life while piloting the passenger trains.

A second stop is made when the varnish reaches The Plains. Here the kids see a cornfield in the making with a plow, harrow and planter being used simultaneously over on the left-hand side. To the right some of the children may get their first look at cows grazing contentedly, knee deep in luscious June grass and buttercups.

Occasionally the air is pulled so that a handkerchief may be retrieved for a shy, bashful owner. This doesn't bother the crew very much, except that a little faster return trip must be made. At Cumberland Junction the engine is cut off, turned on the wye located in the deep woods and headed back toward Centerville. It is from this section of his land that Becker cuts much of the lumber used for his delivery wagons.

After pumping up the air, checking the fire and water level, Engineer Leonard takes a highball from the conductor and the train starts out for its home terminal. The round trip is more than two miles and requires nearly an hour. Full-size operating practices must be used and the C&S places strong emphasis on safety first.

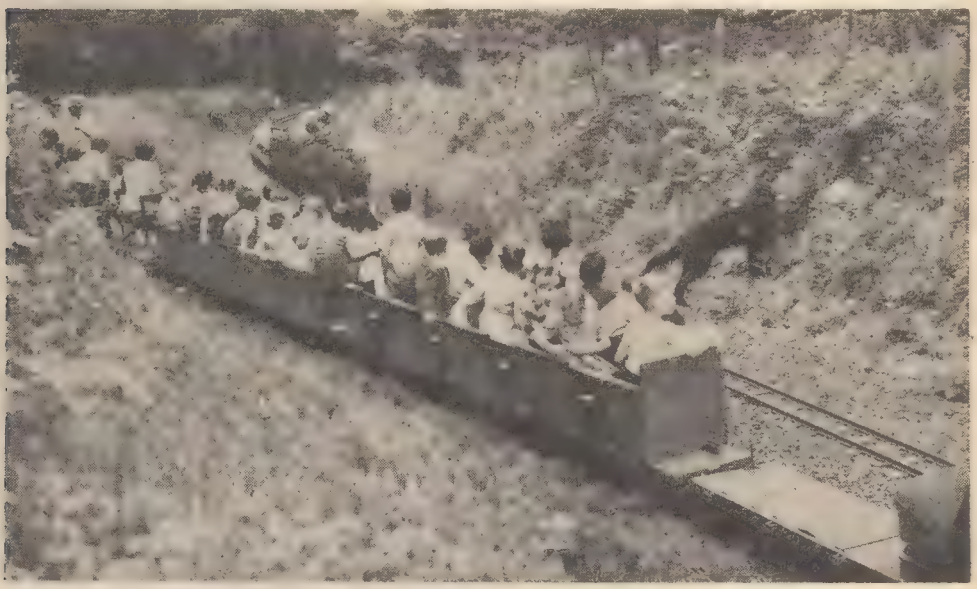
Centerville again—so soon? Well, that's what happens when big power hits a little pike. But ride the Centerville & Southwestern another time. You'll see great changes in the landscape opening out on either side of the dairy farm's right-of-way, though the operation is unchangeable during the spring or fall. "And," says Becker, "visitors *really* interested in the operation of the C&S are always welcome."

Locomotives of the Centerville & Southwestern

Number	Type	Builder	Power	Remarks
1500	0-4-0	Ayres	Motorcycle Engine	Rebuilt to electric locomotive No. E-1
E-1	0-4-0	C&S RR	Storage Battery	Used as inspection engine
1501	4-8-4	Ayres	Steam	Cyl.: 4½ x 5¼; Drivers: 14; B.P.: 150; Grate Area 416 sq. in.; Wt., Eng.: 4972; Wt., Tender: 2140; T.E.: 969
1502	4-8-4	C&S RR	Gasoline Engine	Freight locomotive. Wt. on Drivers: 5500; Wt., Eng.: 7054

Equipment of the Centerville & Southwestern

Number	Type	Builder	WEIGHT			Trucks
			Tare	Load	Gross	
1	Gondola	C&S RR	1000	2500	3500	4-Wheel
2	Chair (4 seats)	Audsley	1015	1000	2015	6-Wheel
3	Flat	Audsley	847	1000	1847	6-Wheel
4	Chair (3 seats)	Audsley	1039	1000	2039	6-Wheel
5	Flat	Audsley	847	1000	1847	6-Wheel
6	Flat	Audsley	847	1000	1847	6-Wheel
7	Air Tank	Audsley	1368	....	1368	6-Wheel
8	School	C&S RR	1077	2400	3477	4-Wheel
9	School	C&S RR	1077	2400	3477	4-Wheel
10	School	C&S RR	1077	2400	3477	4-Wheel
11	School	C&S RR	1077	2400	3477	4-Wheel
12	School	C&S RR	1077	2400	3477	4-Wheel
13	Ballast	C&S RR	960	2500	3460	4-Wheel



Turning on the wye in the deep woods adjacent to Cumberland Junction. Passengers take keen interest in this C&S operation, while Timmy flaunts a casual air

DANGER & DYNAMITE

A CONSTRUCTION GANG AT WORK ON THE NEW RAILROAD CONNECTING CONN JUNCTION WITH SMOKEVILLE A MINING TOWN IN THE FOOTHILLS OF THE ALLEGATOR MOUNTAINS.

THE ROAD HAD BEEN COMPLETED AS FAR AS CRICKETT'S CORNERS WHERE HELEN HOKUS WAS STATIONED AS TELEGRAPH OPERATOR.

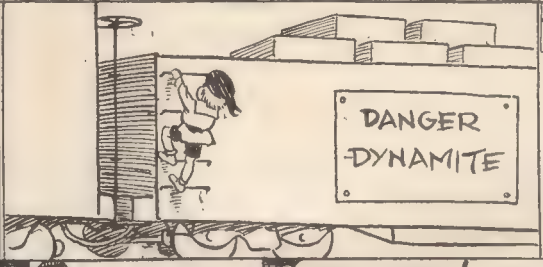
PETE TUNIA THE RUFFIANLY LEADER OF A GANG OF FRONTIER DESPERADOES

EMPLOYED BY A RIVAL SYNDICATE TO IMPEDE THE CONSTRUCTION OF THE NEW ROAD.

WE'LL CUT THE CAR OF DYNAMITE LOOSE AN' START 'ER DOWN THE GRADE. IT'LL BLOW TH' TRESTLE TO ELLEN GONE!

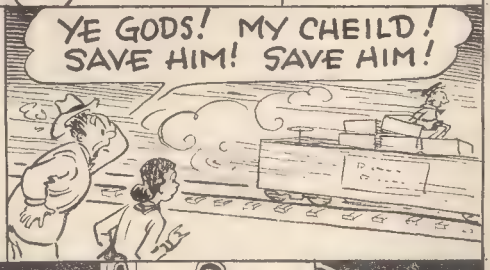
LITTLE SEMMIE NARY, ONLY CHILD OF OLD STACY NARY, PRESIDENT OF THE ROAD, WANDERED AWAY FROM HIS FATHER WHO WAS IN CRICKETT'S CORNERS LOOKING AFTER HIS INTERESTS.

IN HIS PLAY HE CLIMBED ABOARD THE DYNAMITE CAR



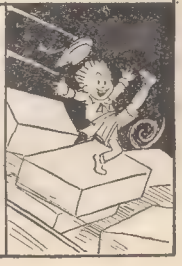
PETE TUNIA AND HIS GANG OF CUT-THROATS UNCOUPLED THE CAR AND STARTED IT DOWN THE LONG GRADE.

IN A CLOUD OF DUST IT SWEPT PAST THE STATION LITTLE SEMMIE PERCHED HIGH ON THE TOPMOST BOX.



HELEN HOKUS, BRAVE, LION-HEARTED HELEN LEAPED UPON A GASOLINE SPEEDER AND WAS OFF LIKE THE WIND IN PURSUIT.

LITTLE SEMMIE ENJOYED THE WILD RIDE THROUGH THE NIGHT NEVER DREAMING OF DANGER.



WHILE FROM FAR DOWN THE TRACK CAME THE REVERBERATING WHISTLE OF THE OVERLAND EXPRESS

TOOT TOOT TOOT TOOT

GRACIOUS! THE EXPRESS!

SPEEDING TOWARD EACH OTHER AT SIXTY MILES AN HOUR

SLOWLY BUT SURELY INTREPID HELEN GAINED ON THE RUNAWAY CAR. **COULD SHE SAVE HIM!!** WITH A WHISPERED PRAYER SHE OPENED THE THROTTLE-WIDE.

AT LAST! HER ACHING FINGERS GRIPPED THE REAR OF THE CAR

AS SHE CLIMBED ABOARD THE HEADLIGHT OF THE EXPRESS SHONE AROUND THE CURVE

HEAVEN HELP US!

SHE SET THE BRAKE AND THE CAR CAME TO A STANDSTILL

BUT— JUST AS SHE GRASPED LITTLE SEMMIE IN HER ARMS AND TURNED TO LEAP TO SAFETY— WITH A DEAFENING ROAR THE EXPRESS—

RUSHED BY ON THE OTHER TRACK.

MATT Collier

President Taft's Undelivered Letter

By
V. W. BENNETT

MY TRIP in the night through Mexican rebel-infested territory carrying a letter signed by President William Howard Taft and addressed to one of the rebel leaders, occurred in August of 1912. During those days, Mexico was supposed to be recovering from the Madero Revolution which started in 1910. Madero had been elected president, and his government had been recognized by the nations of the world. But he had made the mistake of leaving in power army officers who had been trained by, and become accustomed to, the Porfirio Diaz dictatorship. Throngs of self-styled revolutionists—the great majority of whom could justly be called bandits—sprang up all over the country, and in many instances they met with only token resistance from the regular army; and only a few months after the events in which I was involved, a military clique assassinated Madero and his vice president, Pinos Saurez.

About the time I made my trip, a revolutionary group of about 300 people—men, women and children—headed by Emilio Campos, swarmed down out of the mountains into the state of Sonora and burned ten bridges on the main line of

We waved goodbye, then I set out alone to find Campos

the Southern Pacific of Mexico. From there, they started north toward the border, keeping back in the foothills. A few days later, word came in from the hills that three of Campos' men had been killed by American mining men while engaged in a little horse thievery. The situation was pretty dangerous for foreigners from then on.

I was assistant superintendent on the Southern Pacific of Mexico and happened to be at the border town of Nogales when the rebels cut the line. I remained there in charge of the operated portion of the line down to the break, and also of the line running eastward to the large copper town of Cananea in Sonora and on to Naco, Arizona. From word brought in by ranchers, I kept a fairly close check on the movements of the band. I soon saw that they would strike again in the vicinity of Santa Cruz, which was located on our

line running east from Nogales. Mrs. Nan W. Wood, now in her 89th year and a resident of Long Beach, Calif., was our agent at that point. She had with her two small boys and her daughter, who was the telegraph operator. As far as I knew, there were no other Americans there.

The day that the gap in the line to the south was closed, I went down and met the vice president and the general superintendent. Their cars were attached to the first train through. We arrived at Nogales about 8 p. m. I hurried to the telegraph office to inquire about the situation at Santa Cruz. The operator told me that "the little girl"—Mrs. Wood's daughter—had called. I answered her call and could tell by the way she was sending that she was badly frightened. She said, "They are—." That was as far as she got before the wire went dead. Over the telegraphone, we could hear the noise of the instruments being torn out.

Without delay, I reported to the general superintendent and asked permission to take a motor car and go to Santa Cruz. Overhearing my request, the vice president suggested that I take an engine and caboose. He advised me to get in touch with the Mexican colonel in charge of the troops stationed there and offer to put on more equipment and take soldiers out to the scene of the trouble.

Wirt G. Bowman, then station agent at Nogales and now one of the best-known men in Arizona, a man who speaks Spanish fluently, went over to the quarters and explained the situation to the colonel. The colonel hesitated, saying that going out in the night that way was dangerous, for the rebels might blow up the train. Bowman replied that the train was going out in any event. "*Lindo*, fine!" exclaimed the colonel, clapping his hands. "Let them go and if nothing happens we will go out tomorrow."

By the time we were ready to leave, word of what we intended to do had gotten around town. Several newspaper men asked to go along and were given permission. Also American Vice Consul Bowman—no relation to Wirt G. Bowman—showed up and said that he had a letter signed by President Taft threatening dire consequences to Campos in case of any overt acts against Americans. He had instructions to deliver it to him, so naturally his request to go along was granted.

Just as we got to Santa Barbara station, a handcar arrived from the east, causing considerable excitement; for at the last minute a red light was used to stop the train, forcing the engineer to make an emergency application of the brakes. The foreman in charge of the handcar informed us that one of his men had seen the rebels coming down the Santa Cruz valley toward the tracks. He had hidden out and had watched them set fire to the long trestle spanning the river.

When asked how many there were, he replied ominously, "Thousands; the valley was crowded with them. They went east along the track—toward Santa Cruz."

On hearing this, I reported back to the office and stated that I was returning the train to Nogales but continuing on with the handcar. I invited the newspaper men to accompany me, but they refused and the vice consul also declined. He gave me the Taft letter for delivery to Campos.

When we arrived on the handcar at the first burned bridge, I bid the section gang goodbye and started alone down the river bank. Surprised, they asked me where I was going. I told them that I intended to see Campos. They asked if I did not know that it was dangerous, especially as I was a foreigner. I certainly realized this, but I felt it was urgent that I learn if Mrs. Wood, her daughter and the two boys were alive and if so, get help to them.

I went on down, waded the river, and climbed the bank on the other side. The men still remained where I had left them. Due to the light of the burning bridge, I could make them out clearly. I waved goodbye; they waved in return.

IT WAS then after midnight and about ten miles to Santa Cruz. I knew that a trackwalker was stationed a little farther along. He and his family lived in an old

freight car set on rails off to one side of the track. The car was equipped with a telephone, and I hoped to communicate from there.

As I trudged along, I discovered several other bridges already burned or burning. At the trackwalker's station, I called repeatedly, identifying myself. No one answered. I could hear the clock ticking inside, a weird sound in the silence.

I climbed the ladder leading up to the car door, and found both doors opened. When I stepped down off the ladder to the floor, I jarred the whole car. A rooster crowed; some hens cackled.

Since I didn't smoke, I had no matches and had to feel around the wall to locate the telephone. I bumped against the table. Fumbling around, my hand touched what felt like cold bare flesh. I jerked it back. Surely, I thought, I must know what that is. I tried again; and laughed softly to myself. It was bread dough that had been set to rise. The crust had hardened just enough to make it feel like human flesh.

I decided that the rebels had reached here when it was still daylight and the trackwalker's family had fled in terror from their own countrymen. The chickens had escaped the band by taking to the brush.

I continued my search for the telephone. Then, still not finding it, I went outside to see if I could locate the point where the wires entered the car. As I did so, I stumbled over an object that shone bright in the starlight. Stooping down and examining it closely, I found it to be part of the telephone which had been smashed to bits and the bells actually pounded to pieces with a rock.

I left the car and went in the direction of Santa Cruz. Soon, I came to another long bridge that had been fired from the deck and was still burning fiercely. I again waded the river. As I turned and looked back, I saw the live coals as they dropped into the river, submerged, then came up and floated, trailing steam behind like miniature steamboats.

As I neared Santa Cruz, my watch told me that it would be daylight in less than an hour. I felt that it would be extremely dangerous to face a nervous sentry in the dark. Half a mile from the town, I climbed down into the wash where a small bridge had been burned and waited there, leaning against the cement abutment. It was still warm from the burning of the trestle portion of the bridge.

Just as soon as it became light enough to distinguish objects at a little distance, I started walking along the track toward town. A few moments later, a handcar came toward me from the edge of the town. I could see what I thought were shawls whipping in the breeze. As the car sped along, I imagined that it was taking the Wood family back home. But I was mistaken. When the car was near enough for them to see me, they stopped abruptly and five or six men jumped off, ran down the side of the hill and hid in the brush along the fence.

I walked up to where the handcar stood and called out in Spanish, telling

HEADACHE
UPSET STOMACH
JUMPY NERVES
RELIEF!
THANKS TO FAMOUS
BROMO-SELTZER
Millions turn to Bromo-Seltzer to relieve ordinary headache *three* ways. It's famous for giving fast help. Caution: Use only as directed. Get Bromo-Seltzer at your drugstore fountain or counter today.
A product of Emerson Drug Company since 1887.
BROMO SELTZER
HEADACHES
NEURALGIA

them who and what I was. Sheepishly, they came out of hiding, picking up their rifles from where they had thrown them. They had thought that I was the sentinel for a troop of federal soldiers.

Before they piled back into the car, they spread out their blankets in an adjacent cornfield, and filled them with green corn from some poor rancher's crop. When they were ready, I rode into town with them.

As I walked up to the station building, I found a young man just saddling up his horse which was tied to the semaphore post. I asked him about Mrs. Wood and the family. No harm had been done to them, he said, and explained that he was second in command of the rebels and had slept there outside the station to be sure that nothing happened to them.

After expressing my gratitude, I walked around to the side window. Having known Mrs. Wood for years, I called her by name, "Nan, Nan!"

I heard a muffled voice reply. When I told her who I was, she said with all reverence, "My God, Vic, I was never so glad to see anyone before in my life." She assured me that they were safe and had not been molested in any way.

I THEN returned to the sentinel, and told him that I had come directly from Nogales. Hearing this, he became very much excited. He sent for Campos. The first thing Campos asked me was how many troops there were in Nogales. I stated that I did not know. This was the truth, but the answer would have been the same had I known. Then he asked me how soon I thought the troops would be there. I replied that I could not venture a guess.

I asked him, politely, what his attitude was toward Americans.

He replied that it was entirely friendly. He went on to say, "I would be very foolish to hold any other attitude. I have a wife and three children in St. Louis, Missouri. My children are in school there."

I deliberated a moment, and then in view of his frankness and general demeanor, I decided not to deliver President Taft's letter. To do so, I felt, would be a gratuitous insult. Later, my action was heartedly approved by my superiors and by other Americans familiar with the circumstances.

About an hour after our conference, Campos called his people together, replenished his commissary from the stocks of the local merchants, and pulled out into the hills. As quickly as possible, I restored the instruments that had been torn out. With telegraphic communication reestablished I reported to headquarters.

A number of bridges a short distance out of town had been fired from the deck. We formed a bucket brigade and put the fires out, thereby saving some of the piling so that jack bents could be placed when it came time to repair the line. Train service, however, was not restored over this line for many months.

That afternoon, we loaded Mrs. Wood and her family and furniture into a two-horse wagon and sent them to a mining camp over the line in Arizona. They never went back to Mexico to live.

I was told afterwards that the townspeople were very grateful to me, since my arrival was followed by the rebels' hurried evacuation. Practically the entire population of the town had run away at their approach, taking even the sick and the elderly who had to be carried. There were several deaths from exposure.

The Chinese merchants—some twenty or more—had taken their money to the station as soon as they heard of Campos' approach and had turned it over to Mrs. Wood for safe keeping. Each sack was marked in Chinese characters and placed with the others in a large gunny sack, kicked under the telegraph table, and allowed to remain there. When Campos and his people left, the Chinese came and got their money. There was no discussion about ownership.

The next day I got out of there on horseback, in the wake of Campos and his crowd—he never dreaming that I had tucked away in my inside coat pocket a letter addressed to him from the President of the United States.

Not in the Wheel Report

By Joseph Easley

"No wonder they've paid no dividends for thirty years . . . men standing around doing nothing!"

Electric Lines:

The Waterville Street Railway Group

WATERVILLE, in the vicinity of which there once operated three unusually small trolley lines, was located near the northerly end of the thousand miles of street railway track which in the early part of the century connected towns and cities along the Atlantic Seaboard from Delaware to Maine. The only three breaks in the continuous trackage were the ferry connections across the Delaware River from Philadelphia, Pa., to Camden, N.J., across the Hudson from Jersey City to New York City and between Portsmouth, N.H., and Kittery, Me. For the remaining miles from Wilmington, Del., all the way up to Waterville, Me., and on to the extreme end of the trackage at Shawmut, Me., you could ride by trolley.

Our Electric Lines department for December, 1943, pointed out the routes taken by many travelers who used the trolley way between Boston and New York. The route from Delaware north to New York City has never, so far as we know, been described.

At the southern tip of the connecting rail lay New Castle, several miles south of Wilmington, which was reached via Delaware Electric Power Co. trolley. There, the traveler changed to a Southern Penn. Traction Co. car to cross the state line and enter Philadelphia. A local Phila. Rapid Transit car made connections with the ferry into Camden, N.J. The ferry terminal at Camden was served by the Public Service Ry., on whose cars the entire trip across the state of New Jersey could be made with only three changes. From Exchange Place terminal in downtown Jersey City, a ferry connection across the Hudson River reached two lower Manhattan lines, the Third Avenue Ry. and the New York Railways Co.

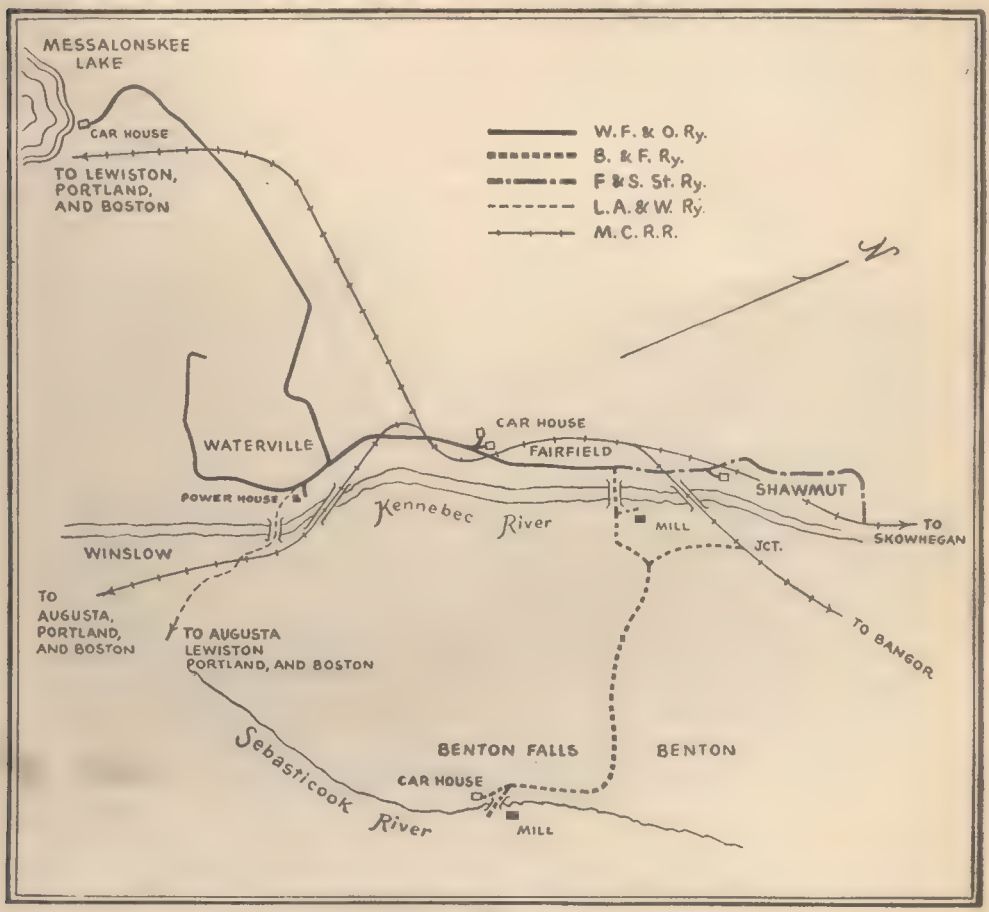
From New York City, the electric rail route continued through New Rochelle,

Step to the rear, folks, and we're off for Maine vacationlands. Number 131, *right*, does advertise New Rochelle, but trolley travelers knew the NY&S better as a key line between Delaware and Maine

Fairfield car barn, *left*, housed WF&O pit, shop, supply room, lobby and dispatcher's office. Barn in rear was being rebuilt after fire of 1936

Below: Maine's interlocking electric system. Longest street railway shown — the WF&O — measured 10.5 miles

on into Bridgeport, New Haven, New London and Danielson, Conn., and into Rhode Island and thence through Providence on to Taunton, Brockton and Boston, Me., over eight electric railway lines: Third Avenue Ry.; N.Y., Westchester & Boston; N.Y. & Stamford; Connecticut Co.; Shore Line Electric; Rhode Island Co.; Eastern Massachusetts St. Ry. and the Boston Elevated Ry. Today all of this



Delaware Electric 101 photographed in 1932 enroute to New Castle, southern terminus of the 1000-mile streetcar junket to Shawmut, Me.

electric track has disappeared except for a few miles of local operation in the Bronx, N.Y., and New Haven, Conn. Alternate routes between Boston and New York existed, but the one mentioned above was the most commonly used by juice fans.

North of Boston, the Bay State Ry. (later Eastern Mass.) reached Newburyport, Mass., where it made connections with the Massachusetts Northeastern (New Hampshire Elec. Rys.) for Hampton Beach, N.H., and the Portsmouth Electric Railway which carried on to the Portsmouth Ferry, operated by the Atlantic Shore line.

Across the harbor from Portsmouth, N.H., at Kittery, Me., the once-extensive Atlantic Shore Ry. ran northward through Kennebunk to Biddeford. The Biddeford & Saco Ry. made connections between the Atlantic Shore Ry. and the Portland Railroad at Saco. From Saco into Portland, the route was over Portland RR cars. At Portland, the electric rail traveler changed to the Portland-Lewiston Interurban RR, and at Lewiston again changed to the Lewiston, Augusta & Waterville (A&K) cars to reach Waterville.

The group of small trolley lines at Waterville were among the most interesting on the electric rail scene. Yet, located as they were at the northerly end of this long railway trip, they received little notice and after more than a decade are almost forgotten. The Waterville group consisted of three railways: the Waterville, Fairfield & Oakland Ry., the Benton & Fairfield Ry., and the Fairfield & Shawmut Street Ry.

These trolley lines served the small

No bustling terminal marked the end of the Fairfield & Shawmut's 3.1-mile trackage. Line did provide connection, however, for the Maine Central station here

towns of Waterville (pop. 13,400), Fairfield (4500), Oakland (2500), Benton (1100) and Shawmut (400). Today towns of this size would hardly support even a small bus line, but the three electrics, two of which were so small that they do not appear to have been listed in the usual trade papers of the day, did well before the influx of private autos and trucks drove them out of business.

Number 1 saw better days as a WF&O 14-bench open passenger, when first put in service about the turn of the century. Rebuilt, she kept the old number

Waterville and the four suburban communities covered an area of about twenty-five square miles. The principal industries were the manufacture of textiles, paper and machine products. Each line had facilities to handle freight from the nearby mills and plants. Waterville, the largest town, was the shopping center. Oakland, five miles to the west, was built on the shore of Messalonskee Lake and was a popular summer resort. Many Waterville residents had summer cottages along the lake and the trolley company could depend on a summer revenue large enough to support them the entire year. The Waterville, Fairfield & Oakland car barn on the lake at the end of the line from Waterville to Oakland had a second floor that was renowned as the largest social and dance hall in the vicinity.

Largest of the three lines in the area, the Waterville, Fairfield & Oakland had its beginning as the Waterville & Fairfield Horse Railroad. This 3.36-mile pike started running horsecars in 1888, with equipment consisting of two open cars, two closed cars and six horses. In 1891 it consolidated with the Waterville Electric Lt. & Pwr. Co., emerging as the Waterville & Fairfield Ry. & Lt. Co. As such it was electrified in 1892. The original electric cars consisted of four 9-bench open cars numbered 4 through 7, three small closed cars numbered 8, 9 and 10, and one snowplow, Number 2. Even after track was extended through the business districts of Waterville, total trackage was only 4.36 miles.

Another electric line, the Waterville & Oakland Street Ry., eventually became part of the WF&O. The W&O was chartered in April, 1903, and began operation from Waterville to Oakland on the lake on July 3rd. Four convertible Duplex Car Co. barrel-sided cars were used in addition to a couple of open cars, one snowplow and a work car. Later on, as business on the lake resorts was built up, seven more open cars were added to the roster. The final merger of the W&O

with the other line was heralded by arguments that while the W&O did its best business in summer months, the W&F had a steady year-round income.

IN November, 1911, the W&O purchased the W&F and the Waterville, Fairfield & Oakland Ry. was created. The roster of the new line included eight closed cars, seven open cars, four combination cars, two snowplows, one work car and one trailer work car. There were three car houses—an exceptionally large number for such a small system—two located at Fairfield and one in Oakland. Power was purchased from the Central Maine Pwr. Co.

The WF&O had two routes. The 4.75-mile Waterville-Fairfield route began in the center of Fairfield and ran through Waterville and a mile and one-half beyond. Running time was twenty-five minutes, with cars on a 15-minute headway. Except in the center of Fairfield and Waterville, track was laid on one side of the street. Fare for the entire run was ten cents. The second W&F route was the Oakland-Waterville run, 5.75 miles long, on which two cars maintained a 30-minute headway with a running time of twenty-five minutes. There were two 10-cent fare zones on this run, one from the center of Waterville and another to Messalonskee Lake, beyond Oakland. The entire trackage for this run was on private right-of-way.

At the transfer station in Waterville, the WF&O connected with the Lewiston, Augusta & Waterville Ry., which had track rights over the WF&O for a short distance on Main Street before reaching the transfer terminal. Two other forgotten lines, the Benton & Fairfield Ry. and the Fairfield & Shawmut Ry., also maintained connections with the WF&O at Fairfield.

The northernmost of these tiny lines, and therefore the one which was actually at the end of the through trolley run up the Atlantic Seaboard from Delaware, was the Fairfield & Shawmut St. Ry., running north from the WF&O terminus at Fairfield to the Maine Central station at Shawmut. The Benton & Fairfield line turned east at Fairfield and although longer than the F&S did not run northerly.

The B&F was a semi-industrial road owned by the United Board Box Co. It was opened for service on the mile of track between Benton and Benton Falls on December 7, 1898, and then extended to connect with the W&F at Fairfield in July, 1899. Starting in the center of Fairfield, it ran along the side of the road for the entire distance of 4.12 miles to the paper mill at Benton Falls. Freight interchange with the Maine Central was provided by a spur line at the outskirts of Fairfield. When the line opened it possessed a single passenger car, two motor freight cars, one snowplow and five trailer service cars used between the paper mills. About 1920, a 10-bench open car and three electric locomotives were added. The small trolley line gave up service about 1928; its remaining cars were kept in the boarded-up barn at Benton until 1935, when they were scrapped and the rail torn up.

The last lap of the long trolley run up the Atlantic Coast was made on a real "jerkwater" line, one even smaller than the Benton & Fairfield. The Fairfield & Shawmut was only 3.1 miles long. Its original equipment included one open car, one closed car, one freight, one snowplow and one work car. In 1921 a second closed car was added and in 1923 a third bought second-hand from the WF&O.

F&S track ran down the center of the street in Fairfield, but went off to the side of the road for the rest of the way to Shawmut. The car barn was near Fairfield and power came from the WF&O Railway. It is said that the F&S was originally meant to be a link connecting with the Skowhegan & Norridgewock Ry., never constructed, and the Somerset Traction Co., which ran from Madison to Skowhegan. At any rate, it earned the distinction of being the northern terminus

of this continuous electric railway route.

Although much has been written concerning the New York-Boston through run and other parts of these connecting lines, the little roads at Waterville are either given no more than a casual mention or else are entirely neglected. Unfortunately we, too, fell into this error in May, 1944, when we printed some notes on the northerly end of the trolley trip, giving the terminus as Oakland and forgetting the minute Fairfield & Shawmut line. We are indebted to Edward Young of East Weymouth, Mass., who gave us much of this valuable information and put us in a position to correct our mistake and acknowledge the F&S as the one-and-only line on the end of the route.

Equipment of the Waterville, Fairfield & Oakland Ry.

No.	Type	Builder	Date	Length	Trucks	Motor	Control	Remarks
1	14B Op.	Steph.	1900	40'00"	Taylor SB	4W514	K-10	(R) as work car. Same No.
1	Work	Steph.	1926	41'00"	Taylor SB	4W514	K-35	(Sc) 1928
3	14B Op.	Steph.	1900	40'00"	Taylor SB	4W514	K-10	(Sc) 1918
6	9B Op.	L&F	1891	27'00"	Bemis	2W12A	K-10	(So) to F&5
9	Closed	Briggs	1891	28'00"	Peckham	2W12A	K-10	Ry., 1923
10	Closed	Briggs	1891	28'00"	Peckham	2W12A	K-10	(So) to F&S Ry., 1921
11	13B Op.	Briggs	1900	36'06"	Brill MT	2W38B	K-10	(Sc) 1926
12	13B Op.	Briggs	1900	36'06"	Brill MT	2W38B	K-10	(Sc) 1926
13	Closed	Bradley	1900	33'10"	Peckham	2GE201	K-11	(Sc) 1931
14	Closed	Bradley	1900	33'10"	Peckham	2GE201	K-11	(Sc) 1931
15	Closed	Jones	1895	28'06"	Brill 21E	2W38B	K-10	(Sc) 1924
16	Closed	Jones	1895	28'06"	Brill 21E	2W38B	K-10	(Sc) 1921
17	9B Op.	L&F	....	31'06"	Peckham	2W38B	K-10	(Sc) 1930
18	9B Op.	L&F	....	31'06"	Peckham	2W38B	K-10	(Sc) 1922
20	Conv.	Duplex	1902	33'02"	Taylor SB	4W12A	K-12	(Sc) 1922
21	Conv.	Duplex	1902	33'02"	Taylor SB	2GE201	K-12	(Sc) 1926
22	Conv.	Duplex	1902	33'02"	Taylor SB	2W56	K-12	(Sc) 1922
23	Conv.	Duplex	1902	33'02"	Taylor SB	2GE201	K-12	(Sc) 1922
24	Closed	Brill	....	35'00"	Brill MT	2W38B	K-11	(Sc) 1922
25	Closed	Brill	1902	35'00"	Brill MT	2W38B	K-11	(Sc) 1922
30	Closed	Brill	1900	20'00"	Brill 21E	2GE80	K-11	BR&E No. 2 Now work car.
33	Wire Car	WF&O	1924	35'00"	Taylor SB	4GE201	K-35	
34	Birney	Wason	1919	30'00"	Brill 79	2W506	K-63	RT&C No. 34 (Bt) 1926
40	Birney	Wason	1922	30'00"	Brill 79	2W508	K-63	
42	Birney	Wason	1922	30'00"	Brill 79	2W508	K-63	(Sc) 1933
44	Birney	Wason	1922	30'00"	Brill 79	2W508	K-63	
50	Semi-Conv.	Kuhlman	1918	43'00"	Brill 76E1	4W514C	K-35	
52	Semi-Conv.	Kuhlman	1918	43'00"	Brill 76E1	4W514C	K-35	
54	Semi-Conv.	Wason	1922	43'00"	Brill 76E1	4W514C	K-35	
56	Semi-Conv.	Wason	1920	43'00"	Brill 76E1	4W514C	K-35	
60	Safety	Brill	1922	41'00"	Brill 77E1	4W506	K-35	B&F No. 400 (Bt.) 1931
101	Safety	Wason	1922	41'00"	Brill 77E1	4W508	K-35	Nos. 101-103 (Bt) from RT&C, 1931
102	Safety	Wason	1922	41'00"	Brill 77E1	4W508	K-35	
103	Safety	Wason	1922	41'00"	Brill 77E1	4W508	K-35	
2	Plow	Company	1900	37'00"	Peckham	2W56	K-11	Burned and (R), 1936
6	Plow	Company	1901	35'00"	Peckham	2GE201	K-11	(Bt) from F&S, 1927
8	Plow	Taunton	1903	30'00"	Taunton	2W306	K-36	(Bt) from RT&C, 1931

(L & F) Lewis & Fowler
(Steph.) Stephenson
(1½ B Op.) 1½ Bench Open Car
(Conv.) Convertible

(MT) Maximum Traction
(R) Rebuilt
(Sc) Scrapped
(So) Sold
(Bt) Bought

Picturesque interurban right-of-way along the banks of the Susquehanna one mile west of Clark's Falls, N. Y. Elmira, Corning & Waverly No. 107 posed in 1912

Carbarn Comments

Steve Maguire

FOLLOWING closely upon our story of the Rochester (N.Y.) Subway, comes news of extensions and progress toward additional utilization of the rapid transit line in that city. Work has already begun on a quarter-mile extension east from the present terminus at Rowlands Station to Monroe Avenue at Allen Creek. Additional extensions eastward are being drawn up, according to *Headlights,* monthly publication of the Electric Railroaders Association.

On the westerly end of the line, track is already in place for a one-half-mile extension from the present loop at General Motors Station, situated just to the rear of the car barns and storage tracks. The new track will follow the canal bed to Mt. Read Boulevard, where it will terminate at a loop. A new station on South Clinton Avenue is now under construction which will substantially increase facilities in line with future planning.

Commissioner Harold MacFarlin is actively pressing connection by rail from the subway to the busy Eastman Kodak plant. This has been under discussion for several years, with plans in most cases calling for electrification of a NYC spur track from the subway line directly into the plant. The new plan, called more

No victory. On July 4th last, BCER retreated from Victoria, B.C., once the stronghold of twelve streetcar lines and one interurban. *Right,* Car 23 at Douglas Street crossroads, Victoria

Photo by Robert Wiley, Santa Cruz, Calif.

desirable by Commissioner MacFarlin, involves the construction of a 3½-mile loop off the westerly end of the subway, to run through the suburban town of Greece, N. Y., and returning south through Kodak Park, site of the Eastman plant.

One of the additional plans also receiving consideration at Rochester, would electrify the NYC and B&O freight lines from the General Motors loop, north to Charlotte, on the shores of Lake Ontario. Rochester newspapers are campaigning for subway expansion, and the Eastman Kodak officials are actively pushing for a line into their plant. The only opponents of this progress seem to be the Rochester Transit Corp., whose bus fleet is considered a prime cause of the horrible congestion in the city streets.

It now looks as if the citizens of Rochester may finally be able to obtain real rapid transit to several important parts of the city.

* * *

END of 68 years of local railway transportation occurred in Victoria, B. C., when regular service of the British Columbia Electric Ry. trolleys ceased on July 4th. John C. McKay, Victoria, B. C., and Evan MacMillam, Ganges, B. C. send us this information, together with newspaper clippings that carry the final obituary of the line. On the day after regular service ended, one car was placed in service in the evening, making a special last run for company and local officials. At the height of its Victoria operations, the BCER had a dozen local streetcar lines in service, and one interurban line to Saanichton Bay, nearly 25 miles away There were so many cars operating, even in late years, that at nights, many of them had to be left out on the streets for lack of room in the barn.

The BCER now operates the Vancouver, B. C. local lines and the long interurban line to Chilliwack. From last reports, the Vancouver local lines may be in jeopardy of a changeover. The fate of the interurban is uncertain at this time.

* * *

WHEN the Norfolk division of the Virginia Transit Co. ran its last streetcar on the Ocean View route, two persons who rode the first electric cars in 1894 were present for the final trip, reports Lt. Comdr. Lester C. Harlow, 821 Rose Lane, Annandale, Va.

Both of these passengers were on the first run by accident, but took pains to be sure they were present for the last ride. One of them, Merle Shumate, was a sailor on liberty on the first ride, and is now a retired Naval officer living in Norfolk.

The first rail service in Norfolk dates back to 1879 when horsecars were introduced. Steam cars made their entry in 1879, and were in turn replaced by trolleys in 1894. July 10, 1948, saw the end of the electrics, now supplanted by buses.

* * *

REPORTING news of a trip to Iowa, J. A. Stitzel of Wilmette, Ill., tells us that the Cedar Rapids & Iowa City interurban line has placed two electric locomo-

Vox pop. Public protests forestalled the abandonment of the Waterloo, Cedar Falls & Northern, while spurring the purchase of three second-hand cars from Knoxville, Tenn. *Right:* A local stop at Brandon, Ia.; Number 100 carries passengers plus baggage

Below: **WCF&N turntable and car barns indicate greater prosperity than do the electric's 1948 ledgers. Properties are hand-me-downs from the road's steam era**

tives in service, numbers 72 and 73, formerly of the Northeastern Oklahoma Ry. They also eliminated four passenger runs in each direction between the cities the line connects.

Waterloo, Cedar Falls & Northern's suburban route from Waterloo to Cedar Falls, is now served by three ex-Knoxville streetcars, built by Perley Thomas Co. This route, Mr. Stitzel advises, was one the company had sought to abandon, but as a result of public protests, it was continued in operation with the newly-acquired cars.

In Des Moines, only two local lines are left, the Ft. Des Moines route to the former WAC camp, and the long suburban route to Urbandale, both slated for buses shortly in spite of the fact that they are largely on private way not paralleled by streets.

* * *

ARRIVAL of a last-trip envelope, bearing the postmark of the San Perdo-Los Angeles RPO run No. 146, gave us news that the Pacific Electric is left with only one RPO route, that being on the LA-San Bernardino line which has no passenger service.

A. Wayne Melching and Raymond Younghans, who sent us word of this, say that Pacific Electric now operates

Highway Post Office buses in place of the electrics. The buses carry white colors that bring back memories of the old days of white streetcar RPO lines in many U. S. cities.

* * *

POLITICIANS said it would never happen—a rise in the famed nickel fare on NewYork City's subway and surface lines —yet July first saw D (ime)-day come to Manhattan, bringing with it the end of the cheapest nickel ride in the world, the 20-mile subway run from 242 Street, Manhattan, to New Lots Avenue in Brooklyn.

Fare rises are the subject of discussion in almost every city in the U. S. In fact, so many of them have gone above the dime level that perhaps once again, if the present inflation continues, a fifteen-cent fare may become standard throughout the country. Hartland Smith, 467 Park Ave., Birmingham, Mich. tells us that Detroit has its worries even with the 12½-cent fare. The DSR employes are asking wage rises which must come out of a higher fare or drastic personnel cuts. Of a total of 59 bus routes, twenty-eight lost money and the whole fleet was barely solvent during April. At this same time, the streetcars averaged a profit of twelve cents a mile!

West Penn Railways, which withstood any raises in fare until now, finally bowed to increased costs and made application for modest rises all along the line. Since 1920 there had been no fare boost on the WP system. Even as late as 1940 cuts were still being made.

George Kelly, Monessen, Pa., who sends us this information, explains that on the average zone fares are being increased from five to six cents per zone, while some local fares go from seven to ten cents. Local weekly passes will be $1.25, a jump of twenty-five cents. West Penn's reason for the hikes is that in the past ten years trainmen's wages have risen 66 2/3 percent, while general labor rates are 91 percent up. All materials have jumped from 50 to 100 percent, even 208 percent in the case of lumber.

* * *

BEFORE it passes without notice, perhaps we should mention the final demise of the Louisville Railways' streetcar system. This was the company which only two years ago ordered and received a group of PCC cars for use on their heavy Fourth Street run. No sooner had they been received, than a new company policy ordered them sold to Cleveland. Then after a hot political argument, the city permitted the streetcar abandonment.

On Derby Day, May first, the cars made their final runs. Crowds were carried to Churchill Downs for the last time, after 84 years of railway service. You may recall that it was on the Brook-Chestnut line in Louisville that Fontaine Fox received his first idea of a *Toonerville Trolley* comic feature.

* * *

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Not so funny. Costume cutups of Gerald Cunningham and S. P. Davidson during 1941 fantrip focus attention on age of equipment. Had some electrics reversed the stunt—gone modern—abandonments might have been fewer
S. P. Davidson

making their final run before long. If, as reported, the BCER is planning to abandon even its PCC cars and routes, certainly there can be little hope for new equipment for the interurban service.

* * *

news—but most of it discouraging to juice fans. On the more pleasant side, we can report that the Ottawa Electric Ry. is now receiving its order of twenty new cars from the Ottawa Car—Aircraft Co. Not of PCC design, these coaches resemble the 900 series of Ottawa Electric built in 1933, with an arched roof instead of monitor, a modified type of PCC skirting on front and rear. E. A. Tooher and O.S.A. Lavallee, who sent us this information also enclosed a shot of the first new car, No. 1000. Unfortunately it was taken indoors and would not reproduce on these pages.

In Quebec, the city's last line, St. Malo-Champlain, was changed to bus on May 26th. Jean Leclerc, 744 Third Ave., Lineoilou, Que., advises that the interurban route to St. Anne de Beapré continues in operation and no plans for any changes on this route have been made.

John Riley, 44 Haines Dr., Bloomfield, N. J. recently toured Canada, visiting many of the railway lines from Cornwall to British Columbia, and his reports of their future are far from optimistic. Riley says that gas buses will replace all railway lines in Sudbury, Ont., Saskatoon, Sask., and Victoria, B.C., while trackless trolley systems are planned at Cornwall, Ont.; Winnipeg, Man.; Regina, Sask.; Edmonton, Alta.; Calgary, Alta. and British Columbia Electric at Vancouver. Apparently the old BCER interurban cars from Vancouver to Chilliwack will be

ALL-TIME Roster-History of the Key System—a 20-page booklet in photo-offset—is now available. This is the complete story of one of the West's finest electric lines. Within its pages you ride the palatial ferry steamers, the speeding trains of big orange cars over the vast network of lines that served the Eastshore Empire: that area covering the eastern shore of San Francisco Bay.

Complete with roster and lavish with photographs, this history is sold for $1.50 per copy. Proceeds from this publication to go toward restoration of the last California type Niles Interurban car which is owned by the Bay Area Electric Railroad Association. If interested write Vernon J. Sappers, 1802 E. 23rd St., Oakland 6, California.

* * *

RAILWAY cars are now being operated on only three lines, numbered 2, 7 and 11, in San Diego, Calif. George Childers, Jr., Box 793, Elsinore, Calif., informs us that the San Diego Electric Ry. outfit has been purchased by Jesse Haugh, former Key System president, a National City Lines disciple.

"The railway lines, now operating as the *City Transit System* include the long, right-of-way route to Balboa Park which has several high trestles along the run, and a street-running route, number 2, served entirely by PCC cars. All three lines run down Broadway to the Union Depot in the downtown area."

High Water

By GUY C. ELLIS

HEY, Mr. Engineer, you'd better look out for the high water, just round that big curve ahead of you."

I was busy oiling around with the long-spouted hand oiler, at the same time looking for loose nuts and feeling for hot-boxes, so that I did not see the ten-year-old boy until he spoke to me.

"Where'd you come from?" I asked him, as I gave him the once-over.

"I've been visiting the boys at that other section house," he replied, as he pointed to the west.

"Where you headed for now? Where do you live?" my mind was trying to figure out what kind of a gag the kid was trying to put over.

"My dad's the Santa Fe section boss up this other way," the boy jerked his head up the track to eastward, "and I'm going home."

"What did you say about some water?" I asked, in a bantering tone.

"Well," the kid twisted his toes in the dry dust, "it's running pretty fast 'n high, under the second bridge from here. An' I'm not joking," he added, as he caught my doubting grin.

"Go tell that story to the conductor," I told him as I turned back to work, shaking my head and grinning to myself. A bridge in danger and not a drop of rain nor a cloud in the sky for months!

It was four o'clock in the afternoon of a bright September day, in the late 1890s. I was pulling a 30-car coal train from Gallup, N. M., to Winslow, Ariz., and was now taking water at Houck while waiting for orders.

I could see the sky line fifty miles away, in the direction from which flood waters would come, and there was not even a cloud in it to be seen. And there was not a man-made dam in the whole region to give 'way and cause a washout. The idea of high water seemed screwy.

"Did you see the little boy?" I asked the con when he came with the orders.

"Yes." The con continued to check over the orders.

"Did he tell you a story about high water?" I persisted.

"Yep. Sounded like some kind of a fish story, but I'll ride the headend out of here and we'll have a look."

I had had experience with washouts ever since I had worn knee pants. One time in western Kansas, when on a wagon trip with my father, we drove across a stream which I could have waded without wetting my knees; then, a half mile further along, the road again crossed the creek, but here we could not drive across until next day because of flood waters.

On another trip, we lay under the spring wagon all night, half frozen, with no wood for a fire, without supper, bed or breakfast. Just because there was too much water in what should have been a dry creek bed. But in each of these cases it had been raining hard.

In this western country, only a tenderfoot would make a night camp on low ground. We engineers had learned the hard way, to reduce speed whenever our "smellers'" warned us that the ground had recently been water-soaked. But this cloudless afternoon held no warning of high water or a washout.

A train length from the water tank we crossed the bridge over the main canyon, which was dust dry. This was significant, because the tributary about which we had been warned, was shorter and followed a close parallel across the country. The conductor, standing in the gangway behind me, remarked, "That doesn't look much like high water, does it?"

After crossing this bridge, the track followed the canyon for three miles. Quirno Canyon was the only crooked piece of

track on this 120-mile division, the only stretch of track where a washout could not be seen within a safe stopping distance.

A thousand feet from this bridge the track began a reverted "S" curve, around the point of a hill. As we made the last loop of the S, I could see the bridge. It looked to be a little low in the center.

As we came to a stop, I followed the con to the ground. The fireman and the head brakeman were not far behind us. This bridge, about fifty feet long, crossed a deep, box-like canyon, a sort of oversized trough, that had cut its way through the red sandstone hills that rimmed the main canyon.

WE COULD not see any water until we were close to the edge of the bank. Then what we did see was a-plenty. A flood tide of red water was racing down that trough-like canyon. In the time since the boy had walked across that bridge, a half hour or less, that wild water had carried away every piling and every stringer of that bridge—the ties were just hanging to the rails—and was fast eating away the banks.

As we stood there, the fireman—a lad just out of his teens—said in a shaking voice, "If we hadn't been warned, we might be following those bridge timbers now."

The brakey spoke for the rest of us, when he said, "Ain't that the truth!"

The conductor looked at his watch and

A flood tide of red water was racing down the canyon

made a note in his train-book, then told the brakeman to get the red flag and all the fusees off the engine, and guard the bridge until he was called in.

"Well, hogger," he said, turning to me, "no trains will be crossing that bridge for a day or two. And there is nothing any one can do about it, until that flood runs itself out. Call out the flag to the rear, and give me time to walk back to the office, then back the train up."

As I stood watching the mad flood and thinking what a close call it had been, I saw an old Indian on the further bank, waving his arms and pointing into the water. "*Me miaz*! *Me miaz*!" he shouted.

I looked, and there floating along was the poor Indian's summer work and his winter food—stalks of corn, roots, ears and all.

Before the night passed, we were ordered to perform service that would make "safety" a whistling post. We all fully expected that we would be run back to Gallup. There was absolutely nothing we could do where we were. Besides, we had doubled out of Gallup, had been eighteen hours on duty and had but one meal.

Houck was nothing but a water tank and day-time order office. There was not even a side track. The telegraph operator was also the pumper, and boarded at the section house east of us, pumping a track speeder to and from work.

Now, because of the washout, he had been ordered to stay on duty until relieved. The op told us that the big bugs in Winslow, which was the division point, had gone crazy. The train dispatcher would not believe that there was a washout until the conductor had signed a message stating the extent of the damage caused by the high water. This clinched the story; there was nothing he could do but send out a rescue party.

Finally we got work-train orders, with right over all trains, between Gallup and a point west of the washout. The orders included instructions to back the train up and put it away in the first siding east of Houck and then return to Houck with the engine and caboose.

I went to the office with the conductor, and signed a message asking for orders to run to Gallup. I stated that we were tired and hungry, and that there was nothing we could do out there in the sticks. But the brass hats would not listen.

Soon after dark it began to rain, and I mean rain. It came down in sheets, driven by a cold, 40-mile gale. We closed all the cab windows and the fireman let down the back curtain. And we sat there, with our feet cocked up on the boiler head, trying to find a soft spot for our weariness, while we told each other where the best T-bone steaks were to be had and expressed our considered opinion of dispatchers and superintendents in general.

About ten o'clock, the con climbed up into the engine cab and handed me a message, which instructed us to run to Gallup with the engine and caboose and bring back a train of material.

"What do you think of that, Ellis, on a night like this, and backing up?"

IT WAS still raining hard, and the night was darker than the inside of a trackman's pocket. Thirty miles of backing up, with no cowcatcher and no headlight, through unfenced cattle country where even in broad daylight the trains killed cattle almost daily. Besides, there was the danger that the rain had caused more washouts. The prospect was not inviting, to say the least.

All this was as clear in my mind as was the implication in the conductor's question. He expected that, because of the conditions, I would refuse to carry out the instructions. The two brakemen had also come up into the cab, and were talking in low tones with the fireman. I caught a word or two, which were to the effect that

they too expected me to balk, to be the goat for insubordination. That made me mad. I did not like the idea of being the only one to get fired. Orders were orders, and a job was a job. And I had the most to lose.

"If I'll sign it with you, will you send a message to the effect, that because of the hazard, we will wait until daylight to carry out these instructions?" I asked the conductor.

"No! I'll do nothing of the kind," he snapped. "I asked the op to tell the dispatcher that under the conditions, the movement was not safe. The brains replied, 'You have your orders.'"

"All right, let's go," I said as I reached for the throttle. The three trainmen dropped to the ground and caught the crummy.

I set the speed at about ten miles an hour. Then, shaking with cold and nervous tension, I sat facing into the cab, with my right hand on the throttle. There was no use trying to look back, it was so dark that I could not see even the track at the back of the tender.

We had gone about five miles when I felt a sinking of the engine wheels. I jammed the throttle shut and wiped the air gage in one sweeping movement. Then I grabbed the white light and dropped to the ground.

It was a small washout, and all engine wheels were on the rails and on solid ground. But the front end of the caboose was just hanging to the hind end of the engine. When the front trucks had come to the depression, they had dropped down below their center pin, and were now backed against the possum belly.

"Damn it, Ellis, I wish now that I had sent that message! Don't you think that we'd better stay right here until daylight?" asked the con, seeing the mess.

"You're not talking to me, buddy," I said. "When I start to do a job, I aim to finish it."

In the dark, the rain and the mud, it was a sweet wrecking job to get that caboose truck back in place. But we did it and crawled along for another half hour through that stormy blackout. Then there was a terrific racket, and the tank did an Indian dance until I slammed on the emergency brakes.

On examination we found the body of a little calf between the engine and the tank, lying half over one rail. One driver was up on the carcass. Six inches more and that pair of drivers would have been on the ties, where one pair of tank wheels was anyway. Slow speed and quick stopping was all that kept us out of the ditch.

While we were getting this mess cleared up, the conductor and the two brakemen tried again to talk me into waiting until daylight. But I was still mad and determined to finish the job. And I knew that terrain and I felt pretty sure that we were past the danger from cattle and washouts.

To tell the truth, I was rather enjoying the crew's fright. And fortunately my hunch proved correct: we had no more trouble that night.

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Rebuilding of Italy's Railroad Bridges

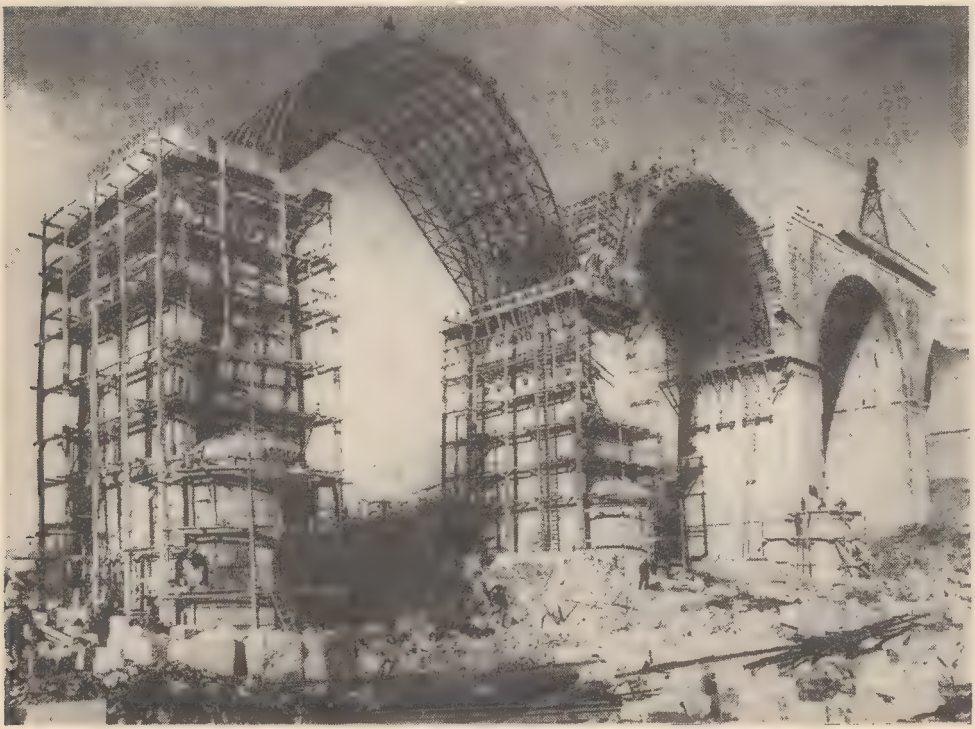
TARGET FOR TODAY . . . With this phrase military commanders ordered the destruction of countless bridges and rail lines all over Europe. Target for today now means that one more unit of a wrecked transportation system is being restored to peacetime usefulness. Especially in Italy, nerve-center of the continent's paralyzed commerce, rebuilding goes on at a feverish pace. Key railroad bridges, tie-ins that linked main industrial traffic lines up and down the rocky, boot-shaped country, are the main objectives of corps of construction engineers. In this new type of warfare the cry, "Bombs away!" has changed to "'Ware the crane below!" and the old, resultant burst of debris that blocked the flow of wartime goods is replaced by stately arches over which food trains, filled from ships at toe bases, pass northward up the hungry peninsula

Photos from World Press

No tactic against lack of material and the forces of damage has been overlooked in the railway engineers' struggle to rehabilitate rail communication lines. One prime method is to re-use old metal structures. ***At left*** is the double-track bridge link between Milan, Bologna, Florence and Rome as it looked when eleven double steel beams, carried on heavy concrete piers, crossed the Po River

The twisted steel, ***above***, more than half of it damaged beyond repair, is what the Nazis left engineers to work with. Aerial bombardment had pulverized the concrete piers. Urgent need for speed in rebuilding and scarcity of material forced decision to utilize the parts for a smaller structure. Reconstruction was started on May 14, 1945, only a few days after Italian liberation. Five months later, 1,390,000 pounds of iron and 1,300 cubic yards of scarce and precious wood reverberated to "trains once more on schedule"

Provisional wooden construction, used whenever steel cannot be bought or diverted from less vital projects, gives the Genoa-Speezia-Leghorn-Rome line bridge above its Early American appearance. The old stone viaduct, once parallel to this, was so completely destroyed that no part of it could be utilized. ***Below:*** Complete reconstruction of the Bergamo-Rovatto bridge over the Oglio River was possible because need for this northern line was not so acute and haste less necessary. Temporary metal arches support wooden forms for new masonry



The first locomotive across the rebuilt Po River bridge on October 14, 1945. Wrecked beams were removed and integrated with provisional metal structures, steel for which frequently had to be obtained from less important rail links. The battered second track is still visible in the background

Milepost 78

IN MY 64 years of active railroad service, prior to retirement in 1946, I have taken part in two great pageants—one celebrating the 150th anniversary of the founding of St. Louis; the other a lifelong tableau on the great stage of the American Railroad. Looking back at the ripe, old age of 78, I would ask nothing better than to travel the same road again. I would want nothing to be changed—the hard work, the problems, the difficulties. The page is written and done and I am content to review it now while I am still active and finding life very much worth the living.

I like to think that my pattern of life might serve to aid others. So many in retirement find nothing to live for and soon rust out in their idleness. I will wear out eventually, I suppose, but I look forward to many years of the full enjoyment of living. I am a great walker; I like the feel of the sun and wind on my face. I go swimming with the kids of Glendora, California, my home. I drive and have worn out half a dozen Ford automobiles. I live on the Pacific Electric lines and travel many miles every month on this, the largest streetcar and motor bus system in the world. If I am in the mood I board a train for my old stamping ground in St. Louis, or I go to Chicago or New York. Not a day that I do not find some new adventure to look forward to. It keeps me young mentally and physically.

I have grown up with the railroad and during my time I have witnessed the great-

By
CHARLES
BURLINGAME
as told to
CHARLES W.
TYLER

He regarded the train with mingled haughtiness and disdain

est and most interesting phase of the development of American railroad transportation—1882 to 1946.

The railroad is the life line of our country and its economic system, and the Terminal Railroad Association of St. Louis is a vital part of this rail network. I say this with pride, for I was a part of the Terminal Railroad Association, having served it as messenger, clerk, timekeeper, chief clerk, general yard clerk, yardmaster, trainmaster, superintendent, special representative and general western agent on the West Coast.

A great many people, including most railroaders, know little of the importance of the work of car interchange at a pulsing gateway where the rails of many lines converge. The Terminal Railroad Association of St. Louis is a cooperative institution which includes 16 trunk lines, with facilities representing an investment of over 70 million dollars.

The Terminal Railroad Association of St. Louis includes the Alton, B&O, Burlington, Chicago & Eastern Illinois, Cotton Belt, Frisco, Illinois Central, L&N, Katy, Missouri Pacific, New York Central, Nickel Plate, Pennsylvania, Rock Island, South-

ern and the Wabash, which represent 40 percent of the U. S. railroad mileage. In 1943 the Terminal Railroad handled 3,008,895 freight cars and 660,906 passenger cars, representing 72,621 passenger trains carrying 22 million passengers.

This is a far cry from the days when Old Man Windstanley's mule blocked traffic on the old Ohio & Mississippi Railroad—now a division of the B&O—and provided me with a story and many a chuckle in later years.

I SEE as clearly as though it happened yesterday that long-legged mule of Old Man Windstanley's out there in the middle of the Ohio & Mississippi Railway track, haughtily scornful of the wild tooting of the dinky little engine on the East St. Louis - Salem, Illinois, accommodation train.

Old Man Windstanley's pasture was located in what is now part of the city of East St. Louis. In those days it was well out in the country. The mule had broken out of the pasture and wandered onto the O&M track, and I had a front seat for the show because I was riding on the cowcatcher, inappropriately named on this occasion, for it should have been the "mulecatcher."

The three-car accommodation train was pulled by one of the old-time engines, which had a big cowcatcher and a large steel sheet in front of the boiler, providing an excellent observation platform. In those days the friendly engine crew permitted some of us commuters, riding out from St. Louis, to sit on this platform.

We had provided ourselves with camp chairs and we had a barrel of fun riding perched up there on the front of the puffing engine. On this particular evening the train was bustling along at a good speed when we sighted the mule standing there between the rails, the lord of all he surveyed and completely contemptuous of the approach of his cousin, the Iron Horse.

The whistle was blown and the bell clanged to no avail. The engineer closed the throttle and leaned far out of the cab to join in the shouting. For a little I wished I was anywhere but there on the cowcatcher, for it soon appeared that a collision was inevitable. However, at the last moment the mule wheeled and galloped down the track.

At a respectable distance he stopped and turned to regard the train with what seemed to be mingled haughtiness and disdain. Again our approach was heralded by the business of whistle-tooting and bell-ringing. The gesticulating and shouting were repeated. Once more the mule tossed his head and flipped his foolish tail and retreated, still keeping to the track with the perversity for which these beasts are noted.

Again he stopped and looked around, viewing with manifest interest the smoke-billowing stack and all of the heads sticking out of the coaches. Timing his further retreat nicely he loped off with a flourish of his heels just as we on the cowcatcher were readying to jump. For seven miles we chased Old Man Windstanley's mule, alternately puffing ahead and then slowing to avoid hitting the critter. Finally a farmer up the line, attracted by all of that whistle-blowing, saw what was wrong and chased the animal off the right-of-way.

Mr. Windstanley, one of the great characters of East St. Louis, was a familiar sight in that historical city as he drove through the rutted streets on his way from his home to the pasture to look after his stock. He was an enormous man of over 300 pounds, and he always rode in a buckboard, bouncing along the rough country road on that energized vehicle, part of the time in the air and part of the time threatening to crash through the seat and those sagging slats that joined the front and rear wheels.

Old Man Windstanley and his mule linger in my memory, one of the homely but cherished scenes of my youth.

My father was a stern and practical man who believed that hard work and apprenticeship were the only worth-while courses to higher education. A common school education, he felt, was sufficient preparation for a job and he met the problem of

preparing his four sons for future responsibilities by removing each of us from school promptly on our twelfth birthdays and finding jobs for us with the Ohio & Mississippi Railroad.

Father never believed in allowing a boy to fritter away his time, and he was convinced that all a young man learned in college was to smoke, drink and chase women. A railroad man himself, he naturally felt that this field offered the greatest opportunity for steady employment and advancement.

I was born in Wilmington, Indiana, in 1870. In 1872 our family moved to East St. Louis, where my father had been appointed general foreman of cleaning and repairs for the O&M. I worked under him in the old St. Louis Union Depot for two years, receiving $10.00 a month.

When I was fourteen, William A. Garrett, then chief clerk in the office of superintendent of the St. Louis Bridge & Tunnel Railroad Company, gave me a job as messenger at $12 a month. I was very proud of my promotion and proud to work for Mr. Garrett, a great railroad man.

The offices of the St. Louis Bridge & Tunnel Railroad Company were located at 12th and Popular streets in the old Union Depot building. Here was born the present Terminal Railroad Association of St. Louis, which today serves the industrial district of St. Louis and adjacent communities on both sides of the Mississippi River, with its 16 railroads and 12 tenant lines. In addition to connections and traffic interchange with these 28 roads, it also serves the Federal Barge Line, Mississippi Valley Barge Line and the St. Louis National Stock Yards.

In its service to the more than 1,400 industries and firms in the area, the Terminal Railroad Association operates 400 miles of track of its own. Including the famous St. Louis Union Passenger Station, this great St. Louis gateway forms the largest railroad terminal in the world. It is here that the east meets the west. Every 24 hours some 18,000 cars are received, classified, rerouted and sent on their way to every nook and corner of the United States.

When I went to work for the Terminal Railroad Association they had 10 little teakettle locomotives. Today they own 140 big, modern coal-burning and Diesel engines.

William Garrett, you might say, was my first professor—my freshman teacher in the hard, practical school of applied railroad science. Before many years Mr. Garrett was made superintendent of the Terminal Railroad Association of St. Louis. He later became vice-president of the Queen & Crescent Railway, vice-president and general manager of the Philadelphia & Reading Railway and president of the Seaboard Air Line Railway.

When I was promoted from messenger to timekeeper, at $20 a month, a small German boy from South St. Louis replaced me as messenger. His name was George Hannauer. Like so many who

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have started in the ranks in this fascinating railroad game, he was destined to become another railroad genius. He served successively as superintendent of the Terminal Railroad of St. Louis, general superintendent of the Indiana Harbor Belt Railroad in Chicago and president of the Boston & Maine. He was also co-inventor of the retardation system which has played so important a part in the development of the railroad classification yard.

While I was working as messenger for Mr. Garrett the Robinson Brothers circus train, moving toward the tunnel, was wrecked on the puzzle at 11th Street. A puzzle was a rarity of track arrangement at that time and this was one of the first installed in the United States. They are in use in all big classifications yards today.

The cars of the circus train were strewn in all directions, cages and wagons were spilled and doors broken open, with the result that every imaginable sort of animal was loosed in the yards. For days the circus men were rounding them up from high under the roof of the depot, from the girders, from under cars and every conceivable sort of a hiding place. Yardmen and depot men never knew when they were going to stumble on some strange and possibly ferocious creature in the dark.

To me it was a great and fascinating adventure—until I came face to face with that lion on the stairway to the second floor of the depot building. Terror magnified the animal out of all normal proportions. I was frozen with fright and every hair on my head, I am certain, stood on end. The poor lion, no doubt, was most unhappy about the whole affair, and he was probably hungry, as well.

I backed up—a step at a time. The lion advanced slowly, snarling and showing its teeth. I finally reached the second floor, expecting the beast to spring any instant. With a wild lunge I suddenly turned and flung myself through the door of Mr. Garrett's office.

"Good Lord!" he exclaimed. "You look as though you had seen a ghost."

"It's no ghost," I gasped. "It's a lion!"

Mr. Garrett happened to have a revolver in his desk and he finally opened the door a crack, and there was the lion in the hall, just a few feet away. The chief clerk emptied his weapon at the creature and slammed the door. With a roar of pain and rage the animal charged into an adjoining office and crashed through the window onto the roof.

The beast was finally cornered in a Pullman Company office by circus attendants, but the poor thing had to be destroyed because of its wounds.

MY LIFE is full of incidents, which, like Old Man Windstanley's mule and the circus lion, have left vivid pictures in my mind. For instance, there is the first man I saw killed—a switchman, who was a victim of the old link-and-pin. It happened in the freight-house yard of the O&M, adjoining our home and on Bloody Island in East St. Louis. The switchman had stepped between the cars to pull a pin. Suddenly he slipped and fell beneath the rolling wheels, I saw him try desperately to roll free and cold horror gripped me. He was partly clear when the wheels caught him.

Just a few moments before he had been talking to me, and now he was on the tie-ends, deathly white and fully conscious. Yardmen moved him to a place beside the tracks and opened his shirt. The skin was not broken—just a heavy red streak across his body—and he did not look to be badly injured. He was, of course, mortally hurt and he died shortly after he was taken to the hospital.

It was a great shock to my young mind and that scene had much to do with the care I practiced throughout my railroad life. In all of the storms, floods, fires, freeze-ups, traffic snarls and strikes that have been a part of my years with the St. Louis Terminal Railroad I was particularly fortunate in escaping injury.

Strangely enough, my narrow escapes all came when I was a passenger on trains or streetcars. My narrowest escape from death occurred in New York City when I

"You know where I'm headed. Down to the dock to jump in the lake"

was a passenger on the old 23rd Street horsecar line. The seats of these cars ran lengthwise and I was seated about midway in the car, which was just at an intersection when a fire engine crashed into us.

The horses were hurled against the side of the car and the pole of the heavy engine was plunged through the car on the side on which I was seated, missing me by a few inches.

In another horse and streetcar collision, I was riding on the rear platform of an Olive Street cable car in St. Louis when the gripman made one of the sudden stops for which cable cars of that day were notorious. A horse and dray was following close behind and the driver was unable to stop or swerve the loaded vehicle. In a twinkling the horse was jammed against the back platform and the heavy, slightly curving shafts struck the rear of the car on each side of me.

Another escape from injury took a humorous turn. Again I was a passenger on that St. Louis-Salem accommodation train, where almost anything could happen and usually did. Coming in to East St. Louis one morning we ran into a flock of sheep. With the hand brakes of those days emergency stops, of course, were out of the question. Even station stops were something of a problem and it was often necessary to back up to discharge passengers. The speed averaged about 30 miles an hour on the accommodation, and the brakemen, it always seemed to me, were awfully skinny, and often the brake appliances were faulty.

When we ran into this flock of sheep, I was riding in the baggage car. The engine left the rails and the baggage car with it. As it started lurching crazily over the ties the baggageman and I grabbed for the overhead cross-rods with which all baggage cars of that day were

equipped, and there we hung like trapeze performers, our feet pulled up out of the way of flying trunks, mailbags, milk cans, chicken coops and live calves.

Perhaps the most outlandish mishap of all those I remember in connection with this accommodation train centered around the portly and haughty lady who walked off into space from the rear platform of the last car in the blackness of the St. Louis Tunnel. Because of the gas fumes in the car in which she had a seat, the lady had walked back, thinking, apparently, to find another car behind in which the air might be better. She passed through the rear door and someone heard a wild shriek.

The conductor was notified just before we got through the tunnel. As usual, some little time was required to handbrake the train to a stop, and at Washington Avenue we organized a party to go back and gather up the remains. A brakeman went ahead with a torch and several of us brought up the rear carrying a car door with which to bring out the body of the poor soul.

Suddenly we saw an apparition striding toward us, waving an umbrella, which she had been clutching when she took her plunge. She was screaming something about a poodle, which it appeared was in the baggage car of the accommodation. Her sole concern, it developed, was who would get her precious poodle from the baggage car when the train arrived at Olney, Illinois.

It was the days of the mutton-leg sleeves and balloon skirts and many layers of petticoats, and the lady, it appeared, had just sort of parachuted off the rear platform and settled to the track on her bustle, fortunately little the worse for the experience. But she had gotten a little more fresh air than she had bargained for.

In my album of memories two wrecks stand out and I was fortunate enough to come through both without injury. The first was a seven-car train which jumped the track near Forrest, Illinois, while travelling at a 55-mile-an-hour clip. Every car left the rails, with each alternate car reversing direction. The right-of-way was so completely plowed up that the ground looked as though no rail had ever been laid there. It took 24 hours to restore traffic.

The other wreck was the 11:30 night theater train out of St. Louis. I was in the second car. The strange thing was that no one noticed that a switch tender had routed the outbound train over the wrong track. How the error escaped the notice of the stationman at Tower Grove, the conductor, the brakeman and the engineer and fireman has always been a puzzle to me. We met the inbound train head-on, close to Howards Station. Both engineers and their firemen died in the wreck. Some of the passengers were injured, but I was one of the lucky ones, possibly because at the time I was sitting with my knees braced against the seat in front of me.

I HAVE been through nine strikes and I have listened to the complaints of many grievance committees, but I always tried to be fair and I kept the respect and the good will of the men under me.

The boys on strike used to have a lot of fun watching the "Old Man" struggling to get those cars from the Bremen Avenue Terminal over to the classification yard at Madison, Illinios. They would line up and give me a lot of more or less good-natured kidding, but there was seldom any violence. However, as in every organization, there was always a small percentage of quick-tempered trouble-makers who had it in for the railroads and the brass hats, just on general principles. Sooner or later some of these fellows landed on the blacklist. No railroad wanted them and there came a time when it was hard for them to get a job, even when working under a flag, or an assumed name.

I remember one man in particular. I am going to call him "Shorty." Shorty was a fire eater. I suppose today you'd call him a Communist. But Shorty had a lot of good traits and he was one of the best yardmen I ever knew. He worked for me for a time when I was superin-

tendent, then vanished from the picture.

Years passed and I had all but forgotten him. Then, one day in Chicago, I saw a man walking down State Street who seemed strangely familiar. He was unshaven and unkempt and the picture of dejection. He saw me and there was a flicker of recognition in the brief, half-furtive glance he sent my way.

It was difficult to associate this wretched specimen with the spruce, cocky yardman, strutting around with a chip on his shoulder, I had known in St. Louis. But it was Shorty all right and I called to him. He was on his uppers; his eyes said he was licked, and he didn't want to see anyone who had known him in the old and happier days.

I caught him by the arm. "Hullo, there, Shorty! Haven't forgotten your old friends, have you?"

Shorty pulled away, his lips twisted into a snarl. "I don't know you, Mister, and I don't want to know you."

"Come, come," I said. "You used to work for me on the St. Louis Terminals. You're not going to pass up an old friend, are you?"

"Hullo, Mr. Burlingame," he said with a wry smile. "Seems like a long time ago we used to wrestle cars in St. Louis." He stood there, looking mighty uncomfortable.

"You look as though the world has been a little rough with you, Shorty," I said.

"Damn rough, Mr. Burlingame. But I guess I had it coming."

"What say we drop in somewhere and get a cup of coffee and talk over old times?"

He hesitated, watching me with those hang-dog eyes, like a man who wanted to get something off his chest. Suddenly he said, "You know where I'm headed?"

"Where?"

"Down to the dock to jump into the lake."

"That's no way for a good railroad man to talk."

"Railroad man!" he sneered. "I'm through railroading. What did it ever get me?"

"Seems to me that I remember you were married, Shorty."

He nodded; then went on bitterly, "No money. No job. No railroad will hire me, and railroading is all I know. No damn good to my wife or anybody else. What have I got to live for?"

"You're not that kind of a quitter, Shorty," I said. "Remember when the yards used to jam up and that perishable stuff had to be moved and we had storms and floods to fight. We straightened it out, didn't we? What a man can do in a railroad terminal he can do for himself when things get tangled."

"You always were quite a preacher, Mr. Burlingame."

"I do more than preach," I said. "Look, Shorty, get hold of yourself. You're still a railroad man, and a good one. I know just the place for you."

"Guess I used to make some trouble for you," Shorty said.

"Forget it. Shake hands on a new leaf."

I gave Shorty a note to a friend of mine in a big city in Texas—a railroad official.

"There's your job, Shorty," I said. "Let's see what you can do with it."

Shorty's eyes misted up. "Gee, Mr. Burlingame, I can't believe it. You sure must have faith in me."

"All the faith in the world," I said.

"Wait until I tell the Missus," Shorty said.

And so Shorty went back to railroading. Today he is a yardmaster—one of the best.

ANSON BURLINGAME, for whom the city of Burlingame, California, was named, was my granduncle. He was a powerful man, over six feet tall and weighing 225 pounds. He was elected to Congress in 1855 and while serving one of his three terms he was challenged to a duel by Preston Brooks.

Anson Burlingame accepted the challenge and selected Bowie knives as the weapons. Brooks, however, declined to go through with the duel, possibly because of Anson's size.

The Burlingames were always big and rugged, and at 78 I stand at six feet and weigh over 200 pounds. I was the tallest, longest-waisted and heaviest of the boys in our family. This I attribute to lessons in breathing my father taught me. During part of my teen-age years we lived in Lebanon, Illinois, and I went to work every morning with Dad.

We got up at five a. m. and caught the 6 o'clock train. The railroad depot was a mile and a half from the house and in striding down to take the train each morning it was the practice of my father to take blowing-out lung exercises, which included deep breathing. I still practice it. But it was not until I was 70 that I gave much attention to the rules of health. Then, finding life very pleasant, I decided to try to stay on earth.

This, I made up my mind, could be accomplished if I would start living like a poor man. My simple life consists of exercising, plain food, sunlight, work, social contacts and an early-to-bed-early-to-rise routine. My philosophy is to let the Lord run the world, while I pay attention to trying to run myself.

I am still imbued with the romance of the rails, and I think, next to a beautiful woman, a modern passenger train is one of the most beautiful creations on earth. I was deeply impressed in my youth by the beauty of Halley's Comet—one of the most wonderful sights I ever saw. It has often reminded me of a train at night—a brilliant headlight, trailed by a long line of diamond-studded cars. There is a sweep and grace to it in the black night that never fails to give me a thrill.

It has been my life-long hobby to see all of the great actors and actresses since the time of John McCullough; all of the heavy-weight pugilists since the days of John L. Sullivan, and all of the presidents of the United States since Grover Cleveland. I have shaken hands with most of them.

I wonder how many of the old-timers around St. Louis went swimming at "The Belfast Chicken's" place at 19th and Pine streets? The Belfast Chicken was an old Irish prize fighter, and in his day he was a top-notch lightweight and the winner of numerous medals which he had on display at his establishment.

My mother and I had been visiting in St. Louis the day President Garfield was shot. There were no radios, of course, to flash out the news, but I never saw anything travel as fast as this startling news. This was July 2, 1881.

When we boarded the O&M train for Lebanon at the old Union Depot the train butcher had 1,500 copies of the St. Louis *Post-Dispatch*. There were crowds waiting at every station and I helped the butcher sell the papers to the excited throngs. The papers had all been sold at Caseyville, Furmans and O'Fallon, the first three stops, but even greater crowds were waiting at the other stations for papers and for news. I remember the assassin was hanged in 1882, the year I started my railroad career on the old Ohio & Mississippi Railroad.

In May, 1914, I took part in the pageant and masque which celebrated the 150th anniversary of the founding of St. Louis. H. J. Pfeifer, chief engineer of the Terminal Railroad Association, took the part of the mayor of St. Louis and I represented General Lafayette. The mammoth stage occupied a World's Fair site built over a lagoon at the foot of Art Hill in Forest Park. The sides of the hill formed the auditorium. The lagoon represented the Mississippi River, flowing between the stage and the audience. The effect was as though the audience were seated on the bluffs of the Illinois shore, looking across the river and watching the growth of St. Louis.

The pageant was illuminated by 4500 lights. Those who took part in both the pageant and masque were neighbors and citizens of St. Louis, attired in rare and historical costumes, many of which had been worn by their fathers and mothers 200 years before. It was a living page of history. There has been no other spectacle like it in the world.

The immortal Lafayette was a guest of the city of St. Louis in 1824; playing

the part of General Lafayette, I landed in Carondelet, just south of St. Louis, and from the steamboat landing proceeded in a phaeton drawn by two white horses. The windows of the city gleamed with a myriad of candles, and there were over 1000 people in this scene.

Because of my early training I was qualified to take a position as chief clerk on one of the O&M divisions when I was 19. I served in this capacity until 1901. Then my old friend, George Hannauer, with whom I had grown up, prevailed upon me to come over to his division when he was assistant superintendent. This change resulted in a promotion to trainmaster. Those were years of hard but fruitful work, and the stern discipline of my father bore the reward he had foreseen.

It was in 1907 that I became superintendent of the Wiggins Division, and later superintendent in charge of all three divisions—Eads, Merchants and Wiggins. I served in this capacity until the fall of 1927.

I was elected to membership in the American Association of Railroad Superintendents in November of 1911, and from 1913 to 1916 I was president of this association. During my administration I specialized on building up the membership and expanding its usefulness. During my stewardship the membership grew from 74 to 740, and we held meetings during these years in Chicago, Richmond, San Francisco and Memphis.

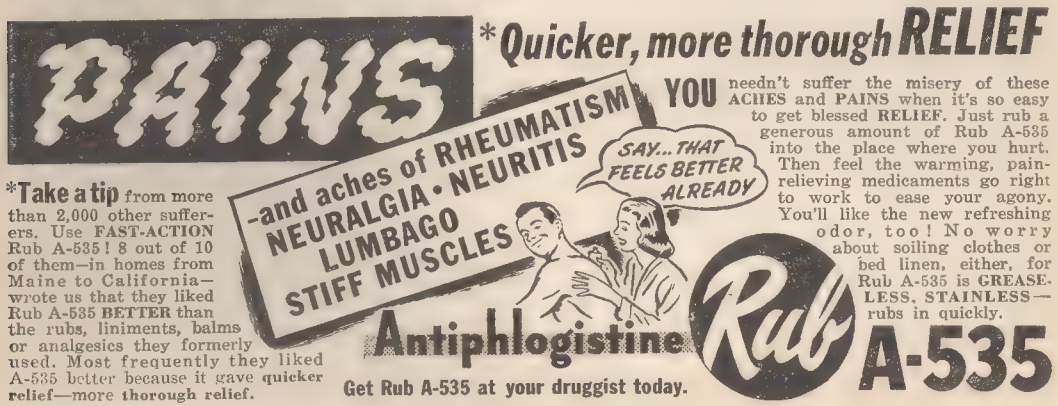
Following my work as special representative, I went to the West Coast July 1, 1932, as general western agent, with headquarters in Los Angeles, California. My territory reached from Vancouver to San Diego and east to El Paso. It also included Phoenix, Arizona, Salt Lake City, Utah, and Billings, Montana.

I retired in April, 1946, and established my home in Glendora, California, in the foothills of the San Gabriel Mountains.

And so I have come to life's milepost Number 78, happy and content and with a zest for living and for remembering—the "Old Man" now, with a lot of railroad pages turned behind me.

The railroad field offers countless opportunities for the youth of Amercia, not only in road and train service but in the yard and the office. To me a great gateway terminal holds a compelling fascination, with its ceaseless flow of car fleets, distributing the commerce of a nation.

From the west they come, these roaring engines and their trains, from the north, the south, the east; from tidewater and inland empire; from the mountains and the plains to this crossing of the Father of Waters. Wheat from the Dakotas, cloth from New England, steel from Pennsylvania, cotton from the deep south, oil from Texas, lumber from the northwest, fruits from California, cattle from the western range, machinery from Ohio—an endless flow of raw materials and finished products, moving in and out of the car interchange.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YOU needn't suffer the misery of these ACHES and PAINS when it's so easy to get blessed RELIEF. Just rub a generous amount of Rub A-535 into the place where you hurt. Then feel the warming, pain-relieving medicaments go right to work to ease your agony. You'll like the new refreshing odor, too! No worry about soiling clothes or bed linen, either, for Rub A-535 is GREASELESS, STAINLESS—rubs in quickly.
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*Take a tip from more than 2,000 other sufferers. Use FAST-ACTION Rub A-535! 8 out of 10 of them—in homes from Maine to California—wrote us that they liked Rub A-535 BETTER than the rubs, liniments, balms or analgesics they formerly used. Most frequently they liked A-535 better because it gave quicker relief—more thorough relief.
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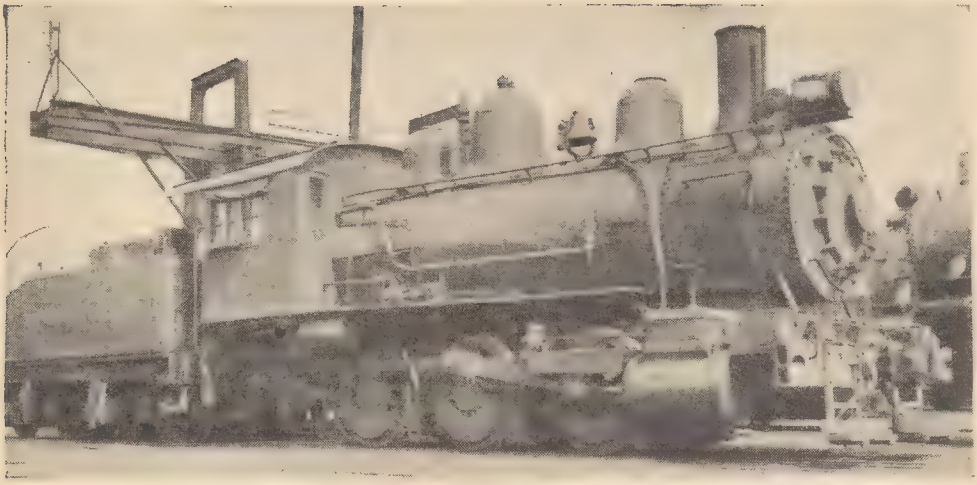


Ted Gay

D-13 switcher 1198 at Mt. Clare Shops, Baltimore

Locomotives of the Baltimore & Ohio (Part 1)

Steam Locomotives

Class	Numbers	Cylinders	Drivers	Pressure	Engine Weight	Tractive Effort	Builder and Date
		0-4-0 (Switcher) Type					
C-16	97, 98	19 x 24	48	180	120,000	27,600	Baldwin, 1912
C-13	317	17½ x 24	50	189	104,000	23,500	Baldwin, 1902
		0-6-0 (Switcher) Type					
D-7	1147, 1151, 1171	19 x 24	52	180	126,800	25,600	Richmond, Baldwin (1171), 1901–03
D-12	1197	19 x 26	51	180	131,000	28,200	Alco, 1925
D-13	1198	19 x 26	51	180	119,000	28,200	Pittsburgh, 1900
D-22	320	18 x 24	51	140	91,000	18,100	Rhode Island, 1892
D-26	1195	19 x 26	51	180	135,500	28,200	Alco, 1909 Baldwin (350–369)
D-30	350–389	21 x 28	52	190	163,500	38,400	Alco (370–389), 1919
D-38	339–343	22 x 28	57	180	163,000	36,400	Lima, 1916
D-40A	345	20 x 26	51	180	144,100	31,100	Baldwin, 1903
D-44	390–394	20 x 26	51	180	144,100	31,200	Brooks, 1904
		0-8-0 (Switcher) Type					
L-1	1000	25 x 28	57	198	210,000	51,700	Alco, 1904
L-1	1001 1002–1016, 1018–	25 x 28	57	210	210,000	54,800	Alco, 1903
L-1A	1085	25 x 28	57	210	210,000	54,800	Alco, 1903
L-1A	1017	25 x 28	57	198	210,000	51,700	Alco, 1903
L-2	601–608, 611, 612, 615–620, 623–629, 631–636, 638, 639, 641, 645	25½ x 30	62	215	221,000	57,500	Alco, 1905–06
L-2	609, 610, 613, 614, 621, 622, 630, 637, 640, 642 644	25½ x 30	62	207	221,000	55,400	Alco, 1905–06
L-2A	600, 692, 696	25½ x 30	62	215	221,000	57,500	Alco, 1910
L-2B	650, 651, 653–655, 661, 664, 666, 672, 674, 675, 682, 693, 700, 701, 704	25½ x 30	62	207	221,000	57,500	Alco, 1906
L-2B	646–649, 652–660, 662, 663, 665, 667–671, 673, 676–681, 683–691, 694, 695, 697–699, 702, 703, 705	25½ x 30	62	215	221,000	57,500	Alco, 1906
L-2C	706, 707, 711, 713	25½ x 30	62	207	221,000	55,400	Alco, 1906
L-2C	708–710, 712, 714	25½ x 30	62	215	221,000	57,500	Alco, 1906
L-4	772–780	24½ x 28	52	185	231,000	51,000	Alco, 1918
L-4A	781–789	24½ x 28	52	185	233,000	51,000	Alco, 1923

Class	Numbers	Cylinders	Drivers	Pressure	Weight	Tractive Effort	Builder and Date
		0-10-0 (Switcher) Type					
U	950, 951	30 x 32	58	225	349,500	95,000	Baldwin, 1926–27
		2-6-0 (Mogul) Type					
K-17	2441–2450	22 x 26	52	185	182,300	38,100	Lima, 1917
K-20	2430, 2431, 2438	21 x 26	51	190	162,000	36,300	Baldwin, 1911
		2-8-0 (Consolidation) Type					
E-8	1212, 1214, 1224, 1228	21 x 26	50	170	134,200	33,100	Baldwin, 1892–93
E-14	1294, 1525, 1531	21 x 26	51	180	155,500	34,400	Baldwin, 1898
E-24A	2200, 2209, 2210, 2225, 2232, 2235, 2237, 2253, 2256, 2257, 2259 2266, 2267, 2277, 2282, 2291, 2307, 2312, 2313, 2315-2317, 2321, 2325, 2332, 2337, 2343, 2357, 2363, 2375, 2381	22 x 28	57	198	216,100	40,000	Alco, 1902–04
E-27	2583	22 x 30	62	205	208,500	40,800	Alco, 1906
E-27A	2639	22 x 30	62	205	211,500	40,800	Alco, 1902

Ivan W. Sanders, 1425 S. St. Clair St., Pittsburgh, Pa.

Number 775 was formerly Buffalo, Rochester & Pittsburgh's 523

W. H. Thrall Jr., 3703 Legation St. N.W., Washington, D. C.

Giant goat. Ten-drivered 950 weighs 349,500 pounds; works the yards at Cumberland, Md.

Class	Numbers	Cylinders	Drivers	Pressure	Engine Weight	Tractive Effort	Builder and Date
E-27B	2736, 2762, 2781, 2782, 2817, 2875, 2891, 2900	22 x 30	62	205	224,900	40,800	Alco, 1910
E-27BA	2748	24 x 30	62	205	224,900	48,600	Alco, 1910
E-27C	2711, 2717, 2725, 2738, 2758, 2779, 2789, 2797, 2802, 2805, 2811, 2812, 2832, 2845	22 x 30	62	215	224,900	42,800	Alco, 1910
E-27CA	2712–2716, 2718, 2719, 2721–2724, 2726–2735, 2737, 2739–2741, 2743–2746, 2749–2757, 2759–2761, 2763, 2764, 2766–2778, 2780, 2783–2785, 2787, 2788, 2790, 2792, 2793, 2795, 2796, 2798–2801, 2803, 2804, 2806–2810, 2813–2816, 2818–2831, 2833–2844, 2846–2865, 2869, 2871–2874, 2876–2879, 2881–2887, 2889, 2890, 2892, 2893, 2895–2897, 2899, 2901–2913	24 x 30	62	215	224,900	50,900	Alco, 1910
E-27D	2786, 2794	24 x 30	62	215	226,550	50,900	Alco, 1910
E-27DA	2547, 2595, 2668, 2678, 2688, 2693, 2695	24 x 30	62	207	226,550	49,100	Alco, 1906
E-27DA	2527, 2534, 2550, 2556, 2563, 2568, 2617, 2626, 2640, 2646, 2677	24 x 30	62	215	226,550	50,900	Alco, 1906
E-27H	2558, 2644	24 x 30	62	207	226,550	49,100	Alco, 1906
E-27H	2520, 2529, 2937, 2555, 2561, 2562, 2565, 2597, 2608, 2609, 2625, 2689, 2706	24 x 30	62	215	226,550	50,900	Alco, 1906
E-27X	2504	25 x 30	62	215	241,500	55,300	Alco, rebuilt in 1927
E-27Z	2511	25 x 30	62	215	235,000	55,300	Alco, rebuilt in 1929
E-31	2916, 2927, 2928	22 x 30	61	200	216,000	40,500	Alco, 1910
E-31A	2919	24 x 30	61	200	216,000	48,200	Alco, 1910
E-31AA	2921, 2922, 2924, 2926, 2929, 2932	22 x 30	61	200	226,000	40,500	Alco, 1910
E-31B	2914, 2915, 2917, 2918, 2925, 2930, 2931	24 x 30	62	207	232,000	49,100	Alco, 1910
E-33	2936	22 x 28	51	190	184,000	42,900	Baldwin, 1903–06
E-34	2947, 2949	22 x 28	51	190	179,000	42,900	Baldwin, 1912–13
E-35	2951	22 x 28	51	190	183,000	42,900	Baldwin, 1914
E-36	2952	23 x 28	52	200	202,000	48,400	Baldwin, 1916
E-41	590–599	22 x 28	57	200	195,100	40,400	Baldwin, 1916
E-51	3002	18 x 26	48	180	135,500	26,900	Alco, 1894
E-55A	3029, 3031	21 x 28	57	200	200,500	36,800	Alco, 1907
E-55B	3037, 3038, 3041, 3042, 3044, 3046, 3048	21 x 28	57	200	200,500	36,800	Alco, 1907
E-56	3051–3053	21 x 28	57	200	197,000	36,800	Alco, 1905
E-56A	3054–3059, 3065–3067	21 x 28	57	200	197,000	36,800	Alco, 1905
E-57A	3078	21 x 28	57	200	197,000	36,800	Alco, 1909
E-60	3103–3107, 3109, 3110, 3112–3128, 3130–3135, 3137–3142	21 x 28	52	200	185,000	40,400	Alco, 1905–08
E-60	3100–3102	21 x 28	52	200	176,800	40,400	Alco, 1904

2-8-2 (Mikado) Type

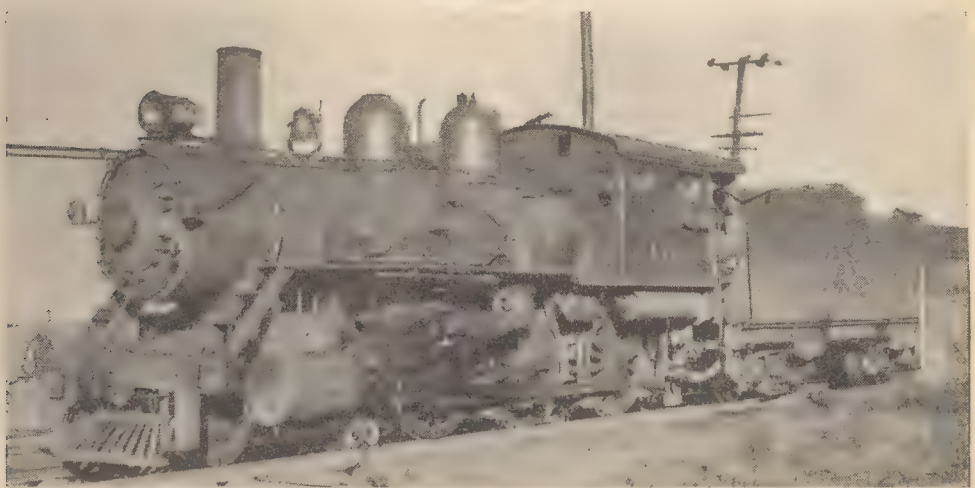
Q-odd-A	4160, 4161	24 x 30	62	215	256,360	50,900	Alco, 1910 rebuilt by Baldwin '11
Q-1A	4087	24 x 32	64	205	282,200	50,200	Baldwin, 1911
Q-1AA	4000–4005, 4007, 4009, 4010, 4013, 4014, 4016, 4018, 4021–4028, 4033, 4035, 4036, 4038–4041, 4043, 4046, 4047, 4049–4052, 4054–4056, 4058, 4059, 4062, 4064, 4065, 4067, 4069–4073, 4075, 4077, 4078, 4080, 4081, 4084, 4086, 4088, 4089, 4093–4095, 4097, 4098, 4101, 4103, 4104, 4108, 4109, 4113–4116, 4118, 4121, 4123–4125, 4127–4130, 4132–4135, 4139, 4141, 4142, 4144–4148	26 x 32	64	190	282,200	54,600	Baldwin, 1911
Q-1BA	4150–4159, 4170, 4173–4180, 4184–4188, 4190–4202, 4206–4214, 4216, 4219	26 x 32	64	190	282,200	54,600	Baldwin, 1911–12
Q-1C	4082, 4220–4222, 4224, 4225, 4227, 4229–4239, 4241–4255, 4257–4283, 4285–4293, 4295–4298, 300–4329	26 x 32	64	190	284,500	54,600	Baldwin, 1913

Ivan W. Sanders

Buffalo & Susquehanna's 159 became B&O's 3133. Photo made at Foxburg, Pa.

Thomas Arnold, 601 E. 34th St., Baltimore, Md.

Experimental Mikado. The 4045, as rebuilt with water tube firebox and separate inlet and exhaust valves



Ten-Wheeler at Parkersburg, W. Va., photographed by S. P. Davidson in 1940

Class	Numbers	Cylinders	Drivers	Pressure	Engine Weight	Tractive Effort	Builder and Date
Q-1XA	4045	26½ x 32	64	200	312,000	59,700	Baldwin, rebuilt 1927
Q-2	4162–4169	27 x 30	63	200	294,800	59,000	Lima, 1916
Q-3	4500–4574, 4576–4599	26 x 30	64	200	292,000	53,800	Baldwin, 1918
Q-4	4400–4445	26 x 32	64	220	327,400	63,200	Baldwin, 1921
Q-4A	4446–4449	26 x 32	64	220	327,400	63,200	Baldwin, 1921
Q-4B	4450–4481, 4483–4499, 4600–4634	26 x 32	64	220	327,400	63,200	Baldwin, 1922–23
Q-4C	4482	26½ x 32	70	240	347,300	65,500	Baldwin, 1923
Q-4D	4635–4637	27 x 32	70	230	347,300	65,000	Baldwin, 1913
Q-7F	4830–4879	26 x 32	64	190	281,900	54,600	Baldwin, 1916
Q-10	4700–4706	26½ x 30	63	190	275,000	54,000	Alco, 1912
Q-10A	4707–4737	26½ x 30	63	190	280,000	54,000	Alco, 1913–14
Q-10B	4738–4746	26½ x 30	63	190	280,000	54,000	Alco, 1917
Q-10C	4747	26½ x 30	63	190	297,500	54,000	Alco, 1917
2-10-0 (Decapod) Type							
Y	6500, 6502–6507	24 x 28	52	200	275,500	52,700	Alco, 1909
2-10-2 (Santa Fe) Type							
S	6003, 6004, 6006, 6007, 6010, 6013, 6016, 6017, 6024–6027, 6029	30 x 32	58	205	410,200	86,500	Baldwin, 1914
S-1	6100–6107, 6109–6174	30 x 32	64	220	436,510	84,300	Baldwin and Lima, 1923–24
S-1A	6175–6224	30 x 32	64	220	436,510	84,300	Lima and Baldwin, 1926
S-1S	6108	30 x 32	64	220	436,510	84,300	Baldwin, 1923
4-6-0 (10-Wheel) Type							
B-8	1352, 1355, 1362, 1386, 1393, 1395, 1396	20 x 26	62	170	140,825	24,300	B & O (1352, 1355), Baldwin (1362–1396), 1891–93
B-8A	1343, 1365, 1377	20 x 26	62	170	140,825	24,300	Baldwin, 1893
B-8B	1383	20 x 26	62	170	140,825	26,700	Baldwin, 1893
B-18C	2020	21 x 28	70	200	173,400	30,000	International Power Co., 1901
B-18CA	2000	21 x 28	70	200	173,400	30,000	International Power Co., 1901
B-18D	2012, 2026, 2028, 2034	21 x 28	70	200	173,400	30,000	International Power Co., 1901
B-18E	2037, 2044, 2057, 2061	21 x 28	70	200	173,400	30,000	Baldwin, 1901
B-54	245	19 x 26	57	180	136,000	25,000	Pittsburgh, 1902–03
B-58	171–180	19 x 28	57	200	163,000	30,000	Baldwin, 1916

(Continued in next issue)

From the late Harry H. Schodde

A distinctive Santa Fe type in widespread service throughout the system. The 6183, pictured at New Castle, Pa., was built by Lima

All God's Chillun Got Shoes

By K. SAUMS

ALL GOD'S CHILLUN got shoes, shoes, shoes," Luther Elrod sang softly as he gathered up all the shoes in the sleeper. Luther had been porter on this same railroad for ten years. "Yeah, Lawd, and I hopes I stay ten more for Sadie, riding back there in the chair car and waiting for the end of the line to marry me. Sadie is mine. But that Mose Parson worries me. He a mean man and he use to be sweet on Sadie. He keeping too still now 'bout me and Sadie marrying up. Planning . . . yeah, he planning some mischief . . ."

Then he stacked the shoes under both arms and did a "hot-cha-me-choo" step-step in the vestibule just to make himself feel good again. Ol' big-lip Parson was sound asleep, hunched over like a baboon behind the shoe shine stand. Luther stood

silently looking at him for a moment, then slid the shoes onto the floor and hot-footed it back to the chair car where Sadie was traveling.

"Hi-ya, Babe!" he whispered into Sadie's uppermost ear. She stirred, raised her sleepy head and then slowly smiled. Man, but his Sadie was pretty!

"You ain't got no business coming back here so often," Sadie giggled. "I ain't saying I don't like it, but business is business. Sometimes it wonders me if you know it. That's a man now that 'tends to business."

That wasn't so good, Sadie mentioning Parson and praising him up like that. Luther stuck his chin out. "I knows, but long's I gets my work done, ain't nothing gonna come of it. They stops here to take on water," he sputtered, defending himself. "See, the train is slowing down. And Parson, he on the floor by them shoes sleeping right now. That ain't so business-like. . . ."

He leaned down and whispered in Sadie's ear, and Sadie playfully shoved him. The train chugged and backed. Fifteen minutes later, the sound of the whistle blowing for the next stop sent Luther flying to get his shoes shined.

It was a good half hour before he staggered back into the chair car, his eyes wild.

Sadie stood up. "What's wrong, Luther?"

The porter wiped sweat off his forehead. "Sadie, Lawd have mercy, all them shoes done switched!"

"Luther, talk sense, how can shoes switch?"

"The coach with them shoes was switched back there at the watering place. What them folks in the sleeper gonna wear when they wakes up?"

"I ain't no railroad man!" Sadie suddenly exploded, pushing Luther away. "Don't be coming to me for no advice! A man who can't 'tend to business, he ain't no man for me!"

As he stared at Sadie, a suspicion hit Luther like a whipping, red flag. Parson was in that coach when it was switched, how come he didn't take care of the shoes? 'Cause he meant trouble, that was why! Trouble that would keep Luther from marrying Sadie. Luther had been a railroad man for sixteen years and in all that time nothing like this had ever happened to him. He gave Sadie one more heart-sick look before fleeing to find Mister MacDonald.

"Mister Mac, all de shoes from the sleeper is switched at the watering place," he said miserably.

The conductor stared in disbelief, then burst into roaring laughter. "Seems you've sure got plenty of shoes to buy, Luther!"

"Mister Mac, I was planning to get married at the end of the line this trip; but if I buys that many shoes—"

"You got a good job here, Luther."

"Lawd, yeah! I'll do what's right. I sho' can't get married if I lose my job." He sighed. "And Sadie, she won't wait with that Parson hanging 'bout with money showing from his pockets. Lawd, what a mess! But a railroad man is a railroad man and the passengers come first. What a lot of shoes!" Luther shook his head in misery. "Let's get it over with, Mister Mac. I'm done for, anyways I look at it!"

The twinkle in Conductor Mac's eyes deepened. "Luther, you've run with me for ten years. We'll see what can be done. I'll send a wire—several wires."

He hurried back to his compartment.

LUTHER waited in the vestibule, muttering to himself. "Lawd, what's the matter with my insides—ain't got none! Lawd, what a mess! My knees is weaker than kitten knees, don't want to stay where they belongs. Sadie most likely to brain me iff'n I disappoints her now!"

Shoes were going round and round in his mind. Shoes for that nice old lady in lower five, little shoes out of date. Shoes for that Senator in ten—Lawd, what expensive shoes a Senator wears! That one-legged man—them five soldiers coming home—Lawd, Lawd, kid's shoes cost as much as grown folks . . . That doctor with them fine new shoes, ain't no telling

how much they cost—that foreign politician, ain't no shoes like his in the United States . . . "I ain't coming out with my skin!" Luther moaned as the conductor motioned him into the coach.

"We're switching the sleeper at Winston, close to Mallard's Shoe Store," MacDonald said. "You stay with the passengers and see they get fitted, and the *Cannon Ball* will pick you up."

At first, Luther was speechless before the indignation of the sleeper passengers. But when the littlest one began to cry about his cowboy shoes, he spoke up:

"Ladies and gentlemen, I'm sho' to blame." He looked down and permitted himself a shy, sly grin. "To tell the truth, I was courtin' Sadie in the chair car when it happened. Us was thinking 'bout getting married at the end of the line. How'd I know that car with all them shoes had a flat wheel of a sudden? Honest, I believes I can send your old shoes to you later. The conductor, Mister Mac, he say I can pay for the new shoes and for us all to get fitted at Winston coming up right now. The *Cannon Ball* going to hitch onto us so we don't lose no time. And I counts it a privilege to do this for my railroad," he finished solemnly, just as the train pulled into Winston.

Mallard whistled when the last passenger hurried in new shoes back to the coach. "That was the fastest shoe fitting I ever did in my life—but I did it!"

"Deed you did, Suh," said Luther. "Now the bill—is it—er—very big, Suh?"

"Biggest bill I ever sold in a month!"

"Lawd have mercy!" breathed Luther. "Give it to me, Suh, I got to 'range—"

"Oh, I'm sending it to the railroad," the man said. "There blows the *Cannon Ball* . . . Someday I want to know what became of all those people's shoes!"

"A-a-men!" said Luther fervently, swinging up on the sleeper steps. The Senator was waiting in the vestibule, motioning him to come on into the car.

The passengers crowded around Luther, smiling. The Senator cleared his throat. "Luther," he said, "you have shown a courageous spirit, unfailing loyalty to your railroad and deep kindness of heart in seeing that we all have shoes. So in a small way we want to show your our appreciation." He finished and shoved a handful of bills into Luther's hands.

"Mister Senator," said Luther, "you is the angel of the Lawd on earth!" His lips trembled as he realized how big and thick the roll of bills was. He could think of nothing to add but, "A-men!"

Just then the Winston telegraph operator yelled at the door, "Luther Elrod on this coach?" A telegram passed from hand to hand until it reached Luther.

"Mister Senator, read it for me—I just natu-ally can't see right now!"

The Senator read: "'Parson was switched with the shoes stop—'"

Luther jumped. "Read that again, please Suh!"

The Senator did. "'. . . the railroad pays the shoe bill stop Sadie waiting for you at end of line stop keep your feet in your shoes stop Conductor MacDonald.'"

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FIDDLETOWN & COPPEROPOLIS RY.

No. 3 Arrival of First Locomotive is Viewed with Mixed Emotions by Citizens of Fiddletown

by Carl Fallberg

On the Spot

CANADIAN NATIONAL feature by William L. Rohde (Nov.-Dec. '47) drew many reader comments, some of them to the effect that "the CNR, being Government-owned, is losing money, whereas the Canadian Pacific, privately owned, is more efficiently operated and has always made money." Andrew Merrilees challenges this statement, saying:

"While I personally hold no brief for Government ownership in business, I am aware that the huge debt structure which the CNR has today is due to the financial machinations of the private interests that promoted the lines now forming the CNR. The debt structure is not the result of Government ownership and operation.

"It all started when this Government guaranteed the bonds of the Canadian Northern and the Grand Trunk Pacific at the time these two systems were building their transcontinental lines prior to World War 1. Most of the bonds were sold to British and European investors as well as Canadian financial institutions. Years before, the CPR had built Canada's first transcontinental line through virgin territory. Immigration from Europe rapidly filled the western territory with homesteaders. The resulting large grain traffic, besides other revenue sources, made the CPR prosper.

"Promoters of the Canadian Northern and the GTP expected that their lines, when completed, would prosper likewise. Both lines were being built through western grain regions untouched by CPR and they, too, opened virgin areas. In addition, the Government's guarantee on their bonds helped them greatly in financing the construction.

"Then came World War I. At that time, both the Canadian Northern and the GTP had construction well advanced but were still short of having complete transcontinental systems. The men and money of Europe were conscripted for the war. The British Government forbade the investment of money, outside of controls, in any place but the United Kingdom. With Europe's money thus shut off from them, the promoters tried to finance the rest of their railroad-building in New York on short-term notes. After much financial strain, the transcontinental routes were finally completed. Immigration, however, failed to fill immediately the lands adjacent to the two roads. The Canadian Northern and the GTP could not afford to wait for the end of the war. Both were overcapitalized, on the verge of bankruptcy. The Government had to take them both over, to protect the bondholders.

"The Canadian National Railways, which was then formed, inherited the fantastic debt structure of its old privately-owned components. The debts might have been pared down and eventually obliterated if the old lines had been allowed to go through the cleansing process of bankruptcy. To have let the lines go bankrupt, however, might well have bankrupted some of our big financial institutions and shaken the confidence of foreign investors in Canadian corporations.

"So the work of unifying large groups of lines all over the country was begun. Many of these lines duplicated one another, never having been designed to operate as one huge system. True, some sections were abandoned, but only in sections where this did not harm the communities served. Others were allowed to remain, though unprofitable, because they were of value for colonization and other purposes. Some have since justified their worth. Many more have yet to do so.

"The Government has power to eliminate many sink-holes of CNR profits, but for economic and other reasons chooses not to do so. Its concept in running the railway is based on the long-term good of

Arthur L. Center, Outdoor Photographic League, San Diego, Calif.

Sociable owl below has his nest under the trestle deck across Santa Fe's underpass between Los Angeles and San Diego. He greets all Diesel-powered trains with flapping wings and a shriek calculated to discourage the locomotive's tired-goose honks

the country rather than the immediate profits. Thus the policy is unlike that of a private company.

"All this has resulted in some very unfair comparisons being made between the CNR and its healthy competitor, the CPR. No other railway on this continent has had anywhere near the CNR debt structure. If it had, such a road would doubtless take prompt steps to recapitalize. Both of the competing systems are making money, but in the one case much of this money has to go toward reduction of debt.

"During the depression years, Sir Edward Beatty, then the CPR chairman and president, urged unification of the two systems, presumably under CPR management. Under his plan, certain lines were to be abandoned and the facilities of both systems unified. Sir Edward, a capable propagandist, was backed by Canadian newspapers favoring the Conservative Government of Canada, which supported his plan. The struggle might have been fairer if the CNR publicity department had been allowed to defend the CNR position, which it was not permitted to do. As a result, the railway's reputation and employe morale suffered.

"Ideas were planted in the public's mind which will take a generation to wipe out. The gist of these ideas was that the CNR, being Government-controlled, was inherently inefficient and might be expected to be a consistent money-loser, a drain on taxpayers. At the same time the CPR was held up as a model of efficiency. This gave the public two choices, either to ship and travel via CNR and thus bolster its revenues or to forget about trying to 'whip a dead horse' and use the CPR in-

stead. As most business men take a dim view of public ownership anyhow, and discourage any real attempts by the government to enter into competition with private concerns, it's easy to understand the layman's attitude. It's high-pressure advertising."

* * *

POST OFFICE CARS. Stephen G. Rich, 118 Sunset Ave., Verona, N. J., supplements as follows the information stated in J. P. Connolly's article, "Manhattan's Early R.P.O. Lines" (June '48):

"Third Ave. cable car R.P.O. operated at least as late as September 19, 1898. I have a post card showing that date in the Third Ave. car postmark. The earliest date I have seen for such postmarks is October 19, 1895, on an envelope. The postmarks read '3rd Ave. New York City R.P.O.,' '3rd Ave. N.Y. City R.P.O' and 'Third Ave. Dist. Car N.Y. City,' each bearing a train number with the date.

"Station J of the New York City Post Office at that time was located on the north side of 125th St. about 200 feet east of Eighth Ave. To the best of my knowledge, it was never during the cable-car R.P.O. period at 125th St. and Amsterdam Ave. I believe that the Washington Heights or Washington Bridge station of the New York Post Office, at 178th St. and Amsterdam Ave., existed during Third Ave. cable-car R.P.O. days and was served by that line. I do not know of any cable-car R.P.O. other than that on 3rd Ave. I was a boy in primary school at the time those white mail cars ran on 125th St. and remember them well."

* * *

DE-STREAMLINING of all New York Central engines that were built streamlined has been completed with removal of the streamlined cover of the 5445, a 4-6-4 type, according to Tom Mohr, 2250 W. Giddings St., Chicago 25, Ill. They were numbered 5445 through 5454. Most, or all, of them now have 14-wheel tenders, are now standard locomotives.

CHICAGO & NORTHWESTERN is building an 18-mile extension northwesterly from Belle Fourche, S. D., in Butte County, S. D., and Crook County, Wyo., reports C. T. Steeb, 9 North 30th St., Billings, Mont., who adds: "Only 20 miles more would extend this line into the railroadless Carter County, Mont., at Alzada, in which case the state would have only two railroadless counties, Garfield and Powder River."

* * *

LONG-LOST WHISTLE. Recently the tones of a whistle at Kingfisher, Okla., brought up the question of its origin. Investigation by the *Kingfisher Times* revealed that this whistle had been on the ill-fated Rock Island train which fell through a washed-out bridge over the Cimarron River near Kingfisher in 1906. The engine is still rusting beneath the surface of that river; but when the railroad company was strengthening the bridge a few years ago, a workman removed the locomotive whistle and put it to work on a refinery at Enid, Okla.

A few weeks ago, the city of Kingfisher bought the whistle for its historic value. This relic is made of brass and weighs 50 pounds. Burial for 40 years in a watery grave had not corroded it. If you happen to be in Kingfisher any day but Sunday, you can hear this whistle at 6 and 8 a.m., 12 noon, and 1 and 6 p.m.

* * *

AFRICA has its quota of *Railroad Magazine* readers. Among them is William F. Bolton, Government transport officer, Kumasi, Gold Coast, West Africa, who writes:

"I was interested in John M. Gorrie's remarks (May '48 *On the Spot*) about the English-Scottish races between rival railway companies of the East and West coasts. The engine of the train that went down in the Tay Bridge disaster was numbered 224 at the time (Dec. 28, 1879) but her number was changed later, after she was salvaged and before she was scrapped.

Chesapeake & Ohio

Test model of "Train X" is expected to be on the rails by 1950—or durn near on 'em, to judge from this Chicago Railroad Fair mockup

"It was only by a fluke that the 224 was on the northbound mail train. The regular engine, *Ladybank,* an 0-4-2 tank, No. 89, had broken down and was replaced by the Dundee spare, or pilot, engine, the 224. The run was from Dundee over the Tay Bridge south to Burntisland and return. The ill-fated train consisted of a third-class car, a first-class car, followed by two more third-class cars, then a second-class, and finally the brake van. There is doubt as to the exact number of passengers; evidence showed that 74 or 75 persons, including the crew, were aboard the train and all presumably drowned.

"The bridge had been opened for traffic March 5, 1878, after a test run made by six 70-ton locomotives, coupled together, at 40 miles per hour. A speed restriction of 25 mph. was placed on the bridge's single track. Queen Victoria traveled over the structure June 20, 1879, to the salute of warships anchored in the broad Firth beneath, and later knighted Thomas Bouch, the bridge designer.

"At 7:13 p.m. on December 28, with a fierce gale blowing, the doomed train passed onto the bridge. A track worker watched the tail lights until they vanished in a sudden light flash followed by total darkness. When no report of the train's arrival was received from the other side, railway officials ventured out onto the bridge and saw, by moonlight, that 13 high spans had gone, and with them the train.

"Months later, the locomotive and cars were raised out of the mud and water. The engine, rerailed at Tayport, was repaired at Cowlairs works. In the 1880s she was rebuilt as a tandem 4-cylinder compound. Eventually reverting to a 2-cylinder design, the 224 was renumbered 1192, her old number being given to a new 0-6-2 tanker. She served throughout World War I, but was scrapped in 1919. The present Tay Bridge carries a double track and stands 60 feet upsteam from the site of the old one. It was opened June 12, 1887, and is 2 miles, 151 feet long."

Adding that he appreciates *Railroad Magazine,* Mr. Bolton concludes: "I want to hear from anyone interested in O gage model pikes, as I need equipment for my layout here in West Africa. I will exchange British or African items of various kinds for good O gage kits or second-hand stuff."

* * *

CHARLES B. CHANEY, who was credited with more knowledge of old-time Baltimore & Ohio and Pennsy motive power than any other person living, has pulled into the Last Terminal and was buried at Laurel, Md. Although he was passionately devoted to railroads as a hobby, Mr. Chaney never was employed on any road. For 50 years he worked in the Brooklyn Navy Yard as a mechanical engineer. After World War I, he supervised the installation of the first Diesel engine on any American warship, the *North Dakota.*

A staunch member of the Railway & Locomotive Historical Society, he refused to join the secession movement headed by Thomas Taber that led to the founding of the Railroadians of America. His valuable railroad library, including an unfinished B&O history, was bequeathed to the Smithsonian Institution at Washington, D.C., but some items from his large collection went to the Enoch Pratt Free Library, Baltimore, Md., and the Maryland Historical Society.

CORRECTIONS. Caption under engine photo in June issue, page 120, which says the White River RR. is "now part of the St. Louis & Iron Mountain," is inaccurate, we learn from Elwin K. Heath, Barre, Vt. There have been several White River railroads in this country, but the one for which that locomotive was built ran in Vermont and therefore was not the road taken over by the St. Louis & Iron Mountain.

Another June caption, page 59, is misleading, according to Fred A. Stindt, 1414 Aberdeen Drive, San Mateo, Calif., in that it gives the impression that Daylight engines, cab-in-fronters, or any other steam power on the Southern Pacific are no longer seen at the spot where Photographer Kelso took the picture or even anywhere around the Los Angeles area. Mr. Stindt points out that the SP's Los Angeles Division is now operating with about 23 percent Diesel and 77 percent steam power.

"Sorry if I gave the impression that I was ever president of the Rapid City, Black Hills & Western," writes L. A. Johnson, 7425 South Shore Drive, Chicago 49, Ill., regarding an item in our June issue. "I tried to rescue the line but could not get capital to continue operation. I complained that the profits from scrapping were so much greater than I could offer for rehabilitation and operation that they constituted unfair competition in the investment field. The road of which I

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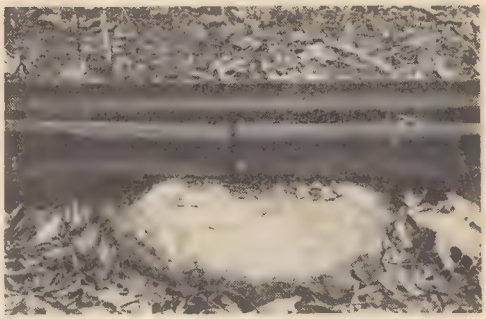
An English war bride on Camden & Amboy trackage where 117 years ago the *John Bull* made its first official run over 36-pound English-rolled T-rail, secured with hookhead spikes Robert Stevens designed. The stone sleepers, quarried and cut by Sing Sing prisoners, lost favor when convict labor proved slow, and wooden ties were tried out in the deep cut at Bordentown, N. J.



spoke as former president was the Columbus & Lake Michigan, later the Lima & Defiance, and during my administration the Lima-Defiance.

"I conducted an extensive survey of shortlines and their territorial resources, geared to industrial decentralization, which is on the march. If present attitudes prevail, these little roads and their territories will get none of this. I felt sure that formal capital could be interested in the promising results of the survey. Due to the junk man and other factors, my hope was blasted. The survey cost me the price of a fair-sized shortline, or I should have had the capital to finance a pilot line and demonstrate the policy.

. "A group of railfans who read my report feel that an administrative policy based upon its findings will save the smallest streak of rust. I believe they will shortly organize to promote these findings."

* * *

TRUE TALE by J. W. Hinds of the Galveston, Houston & Henderson in the June issue and his previous tale of the same road in a previous issue, "Steppin' Through the Dew," remind Robert E. Hicks, 12236 Gorham Ave., West Los Angeles 24, Calif., of long ago.

"From 1911 to about 1920," he writes, "Houston was my home. A favorite recreation of mine, was to take the family on GH&H Sunday excursions to Galveston, picnic on the beach, and return home at night. Mr. Hinds mentions the gold leaf and shine on GH&H locomotives. I recall especially passenger engines 81 and 82, handsome, beautifully kept, with bell and other bright work gleaming in Texas sunlight. Gold stripe decorated locomotives, tenders and coaches. Even trucks were wiped clean and shiny."

* * *

"DEAD ENGINES," by William Jay (June) did not make a hit with John M. Gorrie, 303 E. Shaw St., Charlotte, Mich., who took the two story tellers and their whoppers seriously. "That article is daft," he writes. "I had to read it over and over, wondering where my senses were. 'We test first for no steam,' then he talks of putting a hydrostatic pressure test on the boiler. In other words, they fill up the boiler to 'find leaks that could not be seen with invisible superheated steam.' Now, all boilers generate saturated steam, except those designed on the principle of controlled superheat and the vapor boilers of Europe, the Benson, Loeffler, Velox, etc."

Mr. Gorrie goes at great length into technical details which we regrettably do not have space to publish here, and continues:

"While I was serving my apprenticeship on the old Caledonian Ry. in Scotland, the other apprentices and I thought it would be a great joke to play on engineers to insert a standard half-inch nut between the tire and the rail, jamming the nut up hard against the tire with a file. We had heard so much about the nut trick. One day we followed our impulse, placing the nut as mentioned, and retired to a cab to watch the 'fun.'

"The engineer went for a machinist. Then came the boss fitter. Down into the pit they went peering at the wheel threads. Then they shouted. They had caught on to our nut trick. I told this story years later in the Delaware & Hudson roundhouse at Oneonta, N.Y., and was informed that such a caper might get by on the dinkies in Scotland but not with big American locomotives—they'd run over the nut. Again a nut was produced and stuck in one side of the engine, jammed between tire and rail. The D&H engine couldn't move!"

Mr. Gorrie cites as "another piece of railroad mythology that should have been exploded years ago" the theory that "a locomotive becomes an air compressor when she is pulled dead one way with the reversing gear set in the opposite direction.

"Take the average engine with by-pass valves, superheater and snifter valves, and the oldtime balanced slide valve, which had a relief valve attached to the steam chest as a vacuum-breaker. In fact, all locomotives are equipped with a type of vacuum-breaker to prevent air from being sucked into the cylinders. The exhaust pipe (or blast pipe) acted as a suction inlet and sucked in ashes, soot, etc., which in turn ruined the cylinders and steam chests, hence the installation of vacuum-breakers."

* * *

IF Dr. E. A. Allen will give us his address, we would like to use the gist of his recent letter about Council Bluffs, Iowa, in this department. Readers west of the Mississippi would be interested.

Photographer Gwaltney's son William, ill at home, uses *Railroad Magazine* and a Virginia railroad map to prove a point of railroaders' geography to his visiting teacher, with special reference to the "potato run" of Norfolk Southern 604, *below*

Wm. B. Gwaltney, 2808 Kimball Ter., Norfolk, Va.

FOG was what Harry McClintock, 726-40th St., San Pedro, Calif., was talking about when he wrote to "On the Spot" in the August issue. Fog—not smoke.

"I have seen a lot of foggy spots," he continues, "including the San Francisco Bay area with its famous tule fogs, but in my book the upper Ohio Valley is the worst on the American continent. That goes for the whole Pittsburgh area and the valley as far down-river as Wheeling, W. Va.

"In one of those Ohio Valley fogs visibility was just about zero. Lantern signals could not be seen for much more than a car length and I remember plenty of times when hogger, fireman and head shack leaned out of the cab windows and craned their necks upward to catch the color of the lights on the signal bridges as we passed underneath. Flat crews at Conway passed signals by blowing pocket whistles and doing plenty of hollering. The whistles, originally designed for cyclists, could be bought in any toy shop and there were quite a few varieties, each with a distinctive note. It was important that each member of a crew have the same kind.

"The air-hooters that signalled to hump engines were mounted on tall poles, had funnel-shaped horns and could be heard for a mile or more. Each had its distinctive tone and the yard, on a foggy night, sounded a good bit like a busy harbor under similar conditions. Riding one of those westbound humps where practically every car was heavily loaded was plenty hazardous, especially with fifteen or twenty green hands in the crew. Even the precaution of a redlight hung on the rear car on each track, was not observed at Conway and other Pennsy points out of Chicago where I worked.

"Naturally in the days before electric signals were introduced there were plenty of smashups in the Ohio Valley region. Steubenville and Mingo Junction, both on the Panhandle, had more than their share and a lot of railroaders were killed in wrecks around there. As a result, a legend grew up about an ancient curse. It went like this:

"In 1872 Fort Pitt (Pittsburgh) was garrisoned by Continental troops, but De-

troit was still a British stronghold and the notorious Lord Hamilton, 'the hairbuyer,' was in command. Hamilton offered a standing reward for all colonial scalps or prisoners delivered at Detroit. Since scalps were much easier to transport than captives, there were few prisoners.

"In February of 1872 a force of about 150 Pennsylvania and Virginia riflemen, under a command of a militia colonel named Williamson, started in pursuit of a large band of Indians who had staged a murderous raid. By the time the party had reached the Mingo Bottoms, where Steubenville now stands, the trail was cold and further pursuit hopeless. Some were for turning back but Williamson and a number of other hotheads were determined not to go back without some Indian scalps to show.

Chicago & Northwestern

Proviso Yards, with 260 miles of track, recently built itself a new nerve center—a 60-foot high, glass-enclosed communication and observation tower. Thirty-two loudspeakers enable the general yardmaster to direct all activities

"Only two or three days' march to westward were three villages of Delawares who had been converted to Christianity by Moravian missionaries. No one in Williamson's outfit believed that any of the 'praying Indians' were involved in warfare against the settlers; but Williamson's argument was, 'They're Injuns, ain't they?'

"After a hot discussion, the party pushed on to the doomed villages. There were three of them along the Tuscarawas: Gnadenhutten, Shoenbrun and Salem. The Indians were induced to surrender their arms, herded into the Moravian church and massacred. For cold-blooded treachery and barbarity there are few instances to match the 'Moravian Massacre.' Nearly one hundred years later a monument was erected on the spot where this ghastly chapter in our history was written. On the shaft are the carved words: "Here triumphed in death ninety Christian Indians, March 8th, 1792.'

"In the days when wrecks were so fre-

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Accusing finger of James E. Kilday, Chief of Transportation, Justice Dept., Anti-Trust Div., is leveled on a united rail set-up which, he said, resulted in unreasonable rates during wartime

quent and disastrous around Steubenville and Mingo Junction that old tale of senseless butchery was often re-told. And it was agreed among many that Gnadenhutten had been sanctified by the innocent blood shed there; but that Mingo Bottoms, where the white men had planned murder in council, was under a curse."

* * *

NO ORDINARY PORTER is Charlie Carter, who recently retired as station porter at Crewe, England, after 50 years' service with what used to be the London, Midland & Scottish Railway, reports Arthur J. Richards, 21 Briarfield Road, Tyseley, Birmingham, England. This old-timer is said to have been on speaking terms with royalty and every British Prime Minister of the present century. His fan mail was almost as weighty as a movie star's.

Many stories are told of his technique. An embarrassed traveler who had forgotten his pajamas enlisted Charlie's aid when his southbound train pulled into Crewe. Estimating the traveler's size, Charlie wired ahead to the man's destination, Torquay, and a brand-new suit of nightwear was awaiting him on arrival. Another traveler telegraphed that he could not make Crewe in time to attend a horse sale and buy a certain horse at a stipulated price. Charlie came to the rescue, purchasing the animal by phone at a lower price.

* * *

DESCRIPTION of poppet valve gear used on the Santa Fe in the "Locomotive of the Month" department in August *Railroad,* prompted M. H. Roberts, 124 Linden Ave., Englewood, N. J., to a letter regarding some historical facts related to the poppet valve gear. "As former vice president for many years in charge of engineering for the Franklin Railway Supply Co., I went to Europe in 1935 to study locomotive poppet valve gear performance in France and Great Britain. At that time," Mr. Roberts says, "the Delaware & Hudson had already made two applications of the Rotary Cam poppet valve gear to its locomotives 653 and 1403. Following my observations in Europe and on the D&H, it was my recommendation that the R.C. poppet valve gear should be given preference in this country.

"The application to Baltimore & Ohio locomotive 5360 of the R. C. poppet valve gear of the D&H design as applied to engine 653 did not work out well; the cylinders, unlike the D&H applications, were made of cast iron. They warped to such an extent that it was impossible to keep the valves tight. However, the cam gear and the drive never gave any trouble, and I am glad to see that the Santa Fe has given recognition to the inherent soundness of the R.C. poppet valve gear design.

"The Duplex Exhaust valves were featured first on D&H locomotive 1403. Back in 1936 I received from the Paris firm, Societe Dabeg, a full report with design data for the continuous cam, which was first applied to a French State Railway locomotive by the said Dabeg company. I had ridden this locomotive in 1935 to observe the operation of the continuous cam.

"The R.C. poppet valve gear was designed and patented by Mr. John J. Kupka, of Gladstone, N. J., who was formerly designing engineer of the Lentz Patents Ltd. of London and consulting engineer to the Daberg company."

* * *

THE ONLY civilian job Gen. Omar N. Bradley ever held was on the Wabash Railroad. The four-star general recalled that experience not long ago when he sat at his desk in the Veterans Administration Building, Washington, D. C., and took part in a ceremony at Kansas City, Mo., the christening by remote control of a new streamlined train for the Wabash.

At his side was Miss Mary Leet Pitcairn, daughter of Norman B. Pitcairn, former Wabash president. Mary served as a Red Cross worker in Europe and is now a receptionist in the General's office. Bradley pressed a button which moved a robot arm in far-away K. C., to smash a bottle of champagne against the train's side. Immediately afterward, a Wabash brass hat phoned Bradley from K. C. that the device had worked successfully.

"Too bad! Too bad!" the warrior murmured with a faint grin of regret for all that spilled champagne.

He told reporters that, as the son of a widow, he had gone to work for the Wabash in 1910, shortly after graduating from high school. His first job was with a yard gang at the Moberly, Mo., terminal. Later, at age 17, he became a helper in the locomotive shop, making 17 cents an hour.

In 1911 he began studying nights for West Point entrance examinations that were to be held in St. Louis. Later, a shop foreman gave him a railroad pass to St. Louis. He passed the exams; a brilliant military career followed.

Stephen D. Maguire

Originally built for Russia, lettered "Susquehanna" and Erie-owned, Number 2495 pauses at Middletown & Unionville Station, enroute from NYO&W Shops at Middletown, N. Y. You figure it out!

PULLMAN cars named for certain places may run on roads that do not go near those places, reports Tom Mohr, 2250 W. Giddins St., Chicago 25, Ill. Tom submits the following list of a few such cars:

The *Sioux City,* running on the Erie; *Lake Superior,* B&O; *London Tower,* Pere Marquette; *Lake Melville,* Alton; *Zion City* and *Grand Canyon,* Pennsy; *St. Louis,* Soo Line; *East Columbia,* Pere Marquette, and a GN diner, *Michigan.*

General Electric

Arc-welding at Kenton, Ohio, where International Shops streamline locomotives and coaches. Observation cars like the one above get the special enhancing effect of a steel sheet skirting

HIGH points in our August issue, in the opinion of D. S. Richter, 115 Judah St., San Francisco 22, Calif., were "The Banana Line" and "Locomotive Oddities." "Both," he writes, "were most entertaining and worthy of the highest praise. By the way, three IRCA locomotives were originally built for United States lines. Number 84 was built as Number 10 of the North Pacific Coast, a line which later became part of the Northwestern Pacific and is now abandoned, but was never delivered to the NPC and was subsequently sold to an IRCA predecessor. Numbers 250 and 251 were originally Uintah engines.

"One locomotive oddity not mentioned in your article was McCloud River Number 6, built by Baldwin in 1900, which ran for a short time on the principle that two engines are better than one. With this idea in mind, two 0-60Ts were joined back to back and fitted with dual controls which enabled the engineer to control both from the appropriate seat, depending upon which direction he wanted to go. The fireboy probably had to worry about jumping from one injector to the other, but the fuel was wood and he had to hop from one end of his cab to the other to keep both fireboxes supplied.

"After a while, the engines were separated, and ran as Numbers 5 and 6. Later they were sold, Number 5 to an Oregon lumber company, which is said to have scrapped her about 10 years ago, and Number 6 to a construction company in the San Francisco Bay area, which later resold her to the U.S. Maritime Commission for work in a Richmond, Calif., shipyard, where she is now out of service. To add to this freak's distinction, both engines were Vauclain compounds. Number 6 still retains this feature, possibly the only such engines extant in the country outside a museum."

* * *

AMAZINGLY, the Rochester & Genesee Valley RR., which hasn't functioned since 1871, continues to draw profits. Stockholders met last summer to elect directors, who in turn later chose officers. Here's the story, as told in a *Rochester Times-Union* newspaper clipping sent to us by Bernard J. Weis, 142 Vassar St., Rochester 7, N. Y.

The R&GV has the distinction, says the newspaper, of being the only one in the country without indebtedness and one of the few which has paid a dividend since it started operation. What's more, the stockholders are guaranteed dividends until 2051.

Back in 1851, the railroad was organized to run between Rochester and Avon. The company had a capital structure of

$555,200 and a franchise to run 200 years.

In 1871 the Erie Railroad came along and said, "We'd like to buy your road."

"No," answered the stockholders, "we won't sell, but we'll lease it to you."

And so they signed a lease, running until 2051, whereby the Erie guaranteed the R&GV a return of 6 percent on the capitalization. However, in the Erie reorganization early in the 1940s, R&GV stockholders made a slight concession. They agreed to accept only 4 percent return on their money. And that's why the stockholders met, to insure continuation of the company.

* * *

"AMBASSADOR to Show Business," they call Samuel Reiter, a PRR district passenger agent who recently completed a half-century of railroading. Sam lives at 52-07 244th St., Douglaston, N. Y. He is the Pennsy's theatrical and boxing contact man. He routes and tickets the road shows, circuses, ice carnivals, touring opera companies, itinerant orchestras, the stars and lesser lights of stage, screen, radio, television, and the ring.

He began railroading in 1898 as a PRR messenger in Philadelphia.

Since then he has been a brass pounder and ticket seller at New Brunswick, N. J., a clerk in New York City, and a passenger agent assigned to meet incoming ocean liners. Since 1929 he has been in his present capacity.

* * *

WHISTLES on the Erie's S-1 class steam hogs, according to A. D. Jackson, 48 Powell Rd., Allendale, N. J., "sing late-at-night wakeful people like me back to sleep." He continues: "If any railroad can get up a more soothing sound effect than that given out by a westbound, steam-hauled Erie freight battling its way up the long mainline grade between Ridgewood and Mahwah, late at night, will they please send me a sound recording of it?"

Mr. Jackson challenges a remark made in Donald M. Steffee's latest *Speed Survey,* regarding folks who, before the war, "could set their watches by the *Century's* deep whistle." Deep, was it? Our correspondent refers to it as a "high-pitched banshee scream."

"Maybe Steffee (whose articles I enjoy nevertheless) should have spent a few nights in the Mohawk Valley in the late 1930s, or perhaps he should have had the used-to-be-possible experience of a trip from Albany to New York City on the old night boat. Schedules then were such that the boat would be slipping, quiet as a shad, down the pitch-dark and otherwise dull upper reaches of the Hudson River just as the late-evening litter of Central high-ball trains were rolling along the far shore. That headlight stabbing the blackness of the river bank, that echoing thunder of a J-2 or J-3 dragging anywhere from a dozen to 17 cars at the book limit of 75 per, that now-and-again scream of a high,

Does 3 jobs fast to relieve that BACKACHE

Back plasters are the one product made for 3-way relief of muscular backache:

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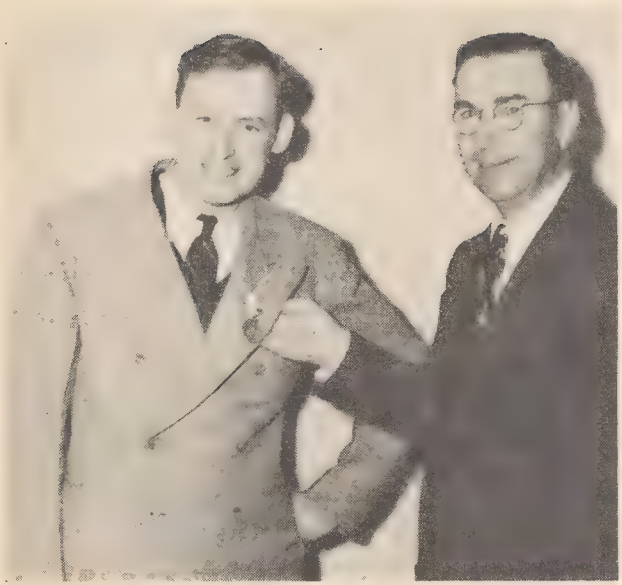
Tests by doctors show that Johnson's BACK PLASTER helps nearly 9 out of 10 sufferers. It's made by Johnson & Johnson—known for fine products for 61 years. At all drug stores.



New York Central

NYC rail, John Van Dover, receiving the Central's medal for heroism. Van Dover dived into the Hudson River from the railroad tug on which he was stationed to rescue a man from drowning. Asst. Supt. F. W. Gleisner, New York Terminal District, made the awarad

wild, steam whistle splitting the river silence—those are experiences not easily forgotten."

* * *

FASTEST train for a non-stop run over its distance, 393 miles, the *Flying Scotsman* has resumed its London-Edinburgh run, on which it set the world's record for steam traction in 1939. The two British Railways trains, which leave both capitals at 10 a.m. daily except Sunday, consist of new air-conditioned coaches, including buffet lounge car for light refreshments and restaurant cars for *table d'hote* and *a la carte* meals. The northbound train carries through cars to Aberdeen.

* * *

SECTION Boss Paul ("Milepost") McGuire, of the Santa Fe, writes from his Fairfax, Okla., home: "After reading Jack Russell's 'Missouri-Kansas-Texas' in July *Railroad Magazine,* I am inclined to believe that those six borrowed track ties were taken off a Santa Fe flat car at Bartlesville, Okla., in 1925 or '26, long before the depression. I gave the Katy foreman at each end of my joint section all the scrap spikes and bolts that had been removed from our tracks. One day their roadmaster, Mr. Mahoney, asked me if I could loan him a couple of maul handles. I said I might let him have 3 or 4.

"He told me that with two spare rails he was changing over all the rail on his curves, something I'd not heard of before or since on the Santa Fe, and that none of his section gangs had any maul handles. I said then that I could let him have a dozen. He replied that two dozen would permit him to finish the job but that he himself had no prospects of getting any at all. When I offered to lend him a full case if he'd pay them back the next summer, he was the happiest man I've ever seen.

"A year later, he paid back the maul handles, but by that time he owed me a dozen shovels and no telling what else. I had 8 or 10 men on a 4-mile section. He had just 2 on 15-mile sections. Our foremen got $22.50 more per month.

"During the depression, most western roads sold their old wooden boxcars to farmers. In my district you can see from 1 to 6 on almost every farm. Around Parsons, Kan., you find a lot of steel-end Katy boxcars that still look like extra good rolling stock. Some official was a little too enterprising for the company's good, but they got the dope on him before he sold any Pullman equipment."

* * *

GLOOMY news comes from a reader named Benhard, Box D, Colfax, Calif., to the effect that the management of the Virginia & Truckee, Nevada's last

passenger-carrying shortline railroad, is pulling out of service a veteran locomotive, Number 27, which the Interstate Commerce Commission recently condemned. Cost of overhauling Number 27 to meet ICC standards is estimated at $10,000, a sum which the V&T says it cannot afford. The old engine may have been sold at auction by the time you read this item.

Lucius Beebe, railcamera man and historian, who spent part of last summer in Nevada in his private car, *The Gold Coast,* was quoted in the *Reno Evening Gazette* as saying:

"It grieves me to see Nevada slowly becoming a graveyard of locally owned, maintained and managed railroads. The obituary list is a long one: the Nevada-California-Oregon, the Nevada Central, the Carson & Colorado, the Tonopah & Tidewater, the Tonopah & Bullfrog, the Eureka & Palisade and, only recently, the Nevada Copper Belt and the Tonopah & Goldfield.

"The condemnation of a V&T locomotive has no special bearing on these morbid reflections. Indeed, the V&T is, at the moment, far safer from the clutches of the junk man than it was before its destinies were taken over by General Manager Sampson. But Number 27, which has been a familiar sight in Carson Valley and Washoe Valley for more than 40 years, will, of stern fiscal necessity, be sold south to the films or indecently scrapped, unless funds are somehow made available to establish it in perpetuity as a Nevada museum piece."

Pennsylvania Railroad

Veteran district passenger agent, Samuel Reiter, gets the 50-year button from General Agent Homes Bannard. Another veteran is old photo of NP Consolidations 1200 and 1255 rubbing noses two miles east of Missoula, Mont., in 1903

* * *

PORTAGE RR. item by Thomas A. English (July '48) caught the eye of W. H. Kilpatrick, 5116½ Hartwick St., Los Angeles 41, Calif., who reports that a

H. L. Kelso, Los Angeles, Calif.

Westbound Santa Fe 4-unit Diesel heads a long drag across the Mojave River three miles east of Victorville, Calif., Santa Fe-Union Pacific helper station

90-year old neighbor of his, Thomas Osborne, helped to build the mile-long line for the Huntsville & Lake of Bays Navigation Co. in Canada in 1900. After operating a stagecoach over the approximate route for 15 years, Osborne bossed a construction crew building the railroad. He is now living at 2214 Norwalk Ave., Los Angeles 41, and still has vivid memories of the Muskota district of Ontario.

"He is the paternal great-grandfather of my youngest granddaughter," adds Kilpatrick, who wrote "Mishaps of The 122" in our August issue.

* * *

BROTHER, can you spare a picture postcard for a bedridden little girl? Cynthia Lee Holmes, whose father, L. L. Holmes, is a New York Central brakeman, has been confined to bed for nearly three years, first with rheumatic fever, then with infantile paralysis. Cynthia finds happiness in collecting cards which some of her father's railroad friends and others send to her. The address is 133 S. Swan St., Albany 6, N. Y. It doesn't take much time and there's no doubt about the keen pleasure you'd be giving.

* * *

TWO men, L. W. Patterson and L. L. Elder, were fishing the other day in the James River near Lynchburg, Va., beside the Chesapeake & Ohio track. A thunderous noise of tree limbs cracking and rock and dirt falling frightened off the fish. Investigating, the men found that a slide of about 70 tons had buried part of the track. They promptly set out to warn east- and westbound trains. Patterson took off his shirt and used it to flag an eastbound. Robert J. Bowman, C&O

president, showed the company's gratitude by sending each man a $100 savings bond and a letter praising him for "alertness in recognizing the imminent danger and taking steps to warn oncoming trains."

* * *

CORRECTING two points in "Locomotive Oddities," our August lead feature, Donald Van Court, 8 Lee Ave., Madison, N. J., points out that the South Jersey RR. is not now part of the Jersey Central, nor is the Lake Erie & Western in the Wheeling & Lake Erie system.

Donald gives the following genealogy of the South Jersey: Formed in 1893 by consolidation of the Richland & Petersburg, the Winslow & Richland and the Petersburg & Sea Isle; consolidated a year later with the Cape May RR. under the name South Jersey RR; sold under foreclosure in 1898 to the Seacoast RR. The latter was used by the Atlantic City RR., probably through lease. In 1901 the Ocean City, the Atlantic City, the Camden County and the Seacoast roads were consolidated under the name Atlantic City RR. In 1933 the AC changed its name to Pennsylvania-Reading Seashore Lines and leased the West Jersey & Seashore to form the present PRSL system.

The present New York, Chicago & St. Louis was formed in 1923 by the merger of the old company of that name with other roads, including the LE&W. Back in 1910, both the NYC&StL and the LE&W were NYCS properties, while W&LE belonged to the Wabash.

* * *

GEORGE W. MERRILL, last heard from as working on the Santa Fe in New Mexico. Your brother Robert, YMCA, P.O. Box 1259, Tampa, Fla., has asked us to contact you, if possible, with the news that your mother is dead.

* * *

MUSEUM. A project for establishing a National Railroad Museum at Washington, D. C., has the backing of many brass hats and members of the American Railway Car Institute. Exhibits would include old relics as well as modern devices for safety, comfort, communications, signals and other evidences of railroad progress.

Incidentally, this project has *no* connection with the spurious appeal being made by an irresponsible railroad-picture collector, usually writing from New York, to obtain material for his personal use. We print this warning because of numerous complaints received over a period of years from readers who have been hoaxed by this man.

* * *

LONGEST stretch of train-radio service in the country has just been inaugurated by the New York Central on

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After years of research, many noted medical scientists have reached an opinion that Psoriasis results from certain internal disorders. A number of physicians have for the last five years been reporting satisfactory treatment of this malady with a new formula called LIPAN—taken *internally*. LIPAN, a combination of glandular substances and vitamins, attacks what is now believed to be the *internal* cause of Psoriasis, and tends to aid in the digestion and assimilation of foods. LIPAN is harmless, non-habit forming, and can be taken with confidence by both young and old. Physician inquiries are invited. Ask your druggist for LIPAN or write us direct for free booklet. Or, order a month's supply of LIPAN—bottle containing 180 tablets—at once, enclosing check or money order for $8.50.

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the 436-mile run of its *20th Century Limited* between New York City and Buffalo. Thus Chicago-bound passengers for 7½ hours each night and New York-bound passengers each morning on the twin *Centuries* can hold regular two-way telephone conversations through constant radio links between the *Centuries* and Bell System transmitting and receiving stations sprinkled along the Central's right-of-way. This should prove a boon to the great number of business men who commute quite regularly between these key financial centers and make travel by rail more inducing.

Fred H. Baird, NYC general passenger traffic manager, says the road plans to extend such radio telephone service the remaining 525 miles along the Central's New York-Chicago main line, through such cities as Erie, Pa., Cleveland, Sandusky and Toledo, O., and South Bend and Elkhart, Ind., when sufficient telephone radio stations are available. Cost of the newly-established service on the person-to-person basis, day or night, is a minimum of 30 cents for local calls; minimum for others, 45 cents.

* * *

THE CONCLUDING wish expressed by Philip T. Leonard in his article "The Banana Line" (Aug. '48) has been realized, according to Frederic Shaw, vice president, Railroadians of America, 542 18th Ave., San Francisco 21, Calif. Leonard wrote that the narrow-gage International Railways of Central America were mulling over the idea of buying either Mallets or Diesels, and he hoped they'd buy Mallets.

They did. Locomotives 250 and 251 of the late Sumpter Valley Ry. have been shipped to Guatemala on the decks of the S.S. *Coastal Adventurer,* have been reassembled, and are now performing well in the tropics. These fine articulateds were built by Baldwin in 1926 and '28 for the Uintah, where they bore road numbers 50 and 51, later being acquired by the Sumpter Valley and finally the IRCA.

CHESEPEAKE & OHIO engine number wanted by Howard T. Noulton, 25 Valley St., Medford, Mass. He writes: "During the war, a soldier friend and I were riding our bikes for recreation near Calverton, Va., when the engine crew of a C&O freight in the hole on the Southern main line invited us into the cab. Hoisting our bikes into the gangway, we were given a ride as far as Manassas. If the engine crew recall that event, will they please tell us the locomotive number?"

* * *

WANTED by C. E. Burright, Box 25, Acton, Calif., words to the poem, "The Engineer's Nightmare."

As Burright remembers it, part of the first verse runs as follows:

"I sprang to my feet and shut off the steam, For I was surely 'balling the jack. At a crossing scarcely 300 feet ahead An automobile was approaching the track."

* * *

LAST STOP is the Reader's Choice Coupon *(page 139),* which guides your editorial crew in selecting material for future issues of *Railroad Magazine.*

Some readers use the coupon. Others prefer not to clip the magazine; they send home-made coupons, postcards or letters. Regardless of how votes are written, all count the same. Results of balloting on the September issue show as follows:

1. Denver's Forgotten Pioneer, *Kennedy*
2. A Smash Hit on the Lehigh, *Moser*
3. Here Comes the Mail, *Runey*
4. Race Track, *Lathrop*
5. Incident on the Main Line, *Somerville*
6. Memo to America, *White*
7. On the Spot
8. First Railroad Clown, *Roach*
9. Electric Lines
10. Light of the Lantern

Most popular photos: pages 82, 11, 31, 77, 94

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ITEMS sent to the *Switch List* and *Model Trading Post* are published free, in good faith, but without guarantee. Write plainly and keep 'em short. Print name and complete address.

Continued on page 140

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Because of time needed to edit, print and distribute this magazine, all material should reach the Editor eight weeks before publication date. Redball handling is given to items we get the first week of each month, if accompanied by latest Reader's Choice coupon (clipped from page 139 or home-made).

Due to scarcity of space, we prefer that no reader be listed here oftener than once in three months.

Use these abbreviations: *pix*, photos; *cond.*, condition; *ea.*, each; *elec.*, electric; *env.*, envelope; *eqpmt.*, equipment; *esp.*, especially; *info.*, information; *n.g.*, narrow-gage, *negs.*, negatives; *p.c.*, postcard; *pref.*, preferably; *tr.*, train.

And these photo sizes: Size 116—2¾x4½ inches; Size 127—1⅝ x 2½; Size 117—2¼x2¼; size 130—2⅞x2⅞; size 118 or 124—3¼x4¼; Size 122 or p.c.—3x5½; Size 616 same as 116, on thin spool: Size 620—2¼x3¼ inches.

The term *tts*, refers to public timetables, unless preceded by *emp.*, when it *means* employes' (operating) timetables.

(R) indicates desire to buy, swap or sell back issues of *Railroad Magazine* or its predecessors, *Railroad Man's* or *Railroad Stories. (Specify condition of each copy.)*

(*) indicates juicefan appeal.

Switch List

CURTIS ALLISON (*), 130 Lakin Terr., Rockford, Ill., wants Rockford or Rock Island, Ill. streetcar pix.

(R*) H. J. AMES, 502 Pine St., Essexville, Mich., wants to trade *Railroad Magazine* Mar. '40 thru Aug. '48 for rr., streetcar or Gt. Lakes p. c.; books on rr. history or Lakes acceptable. Has extra copy of Lane's *Com. Vanderbilt* by Lane for trade. All good cond.

ALLEN R. BAIRD, 259 N. 10th St., Colton, Calif., has all *Railroad Mag.* rosters, many others. No list; state your wants.

FREDERICK M. BIGGS, 406 Fairview Ave., Frederick, Md., wants to corres. with B&O fans to trade size 116, 616 negs. B&O steam power. Can get negs. Q-4, Q-46, Q-7f, Q-1ba, L-2, L-2b classes assigned to Balt. Div., West End; also negs. S-1, S-1a, KB-1, KB-1a classes on Cumberland, East End Div.

RAY BRUCE, 9 Broomfield Ave., Alphington N 20, Victoria, Australia, wants to corres. with someone in America interested in Australian rrs.

(R) JAMES CHARLIN, R. D. 2, Schaghticoke, N. Y., will sell 156 copies *Railroad Magazine* Jan. '35 to date; also B&M emp. tts., tts. several rds., tr. ords., switch lists, AF and Lionel catalogs.

HARRY CHASE, 18 Beech St., Mansfield, Mass., sells 7x9 pix of NH tr., tower, loco paintings, suitable for framing; all size pix tkts., locos. List for stamp.

(R) J. R. COOK, 608 W. Main St., Murfreesboro, Tenn., offers *Railroad Magazine* July '42; Aug., Nov. '44; Mar.-Aug., Dec. '45; Nov. '46; May, Oct. '47, all good cond., wants '43 issues; has *Trains* Dec. '46 to date, perf. cond.; also NC&StL tts., emp. tts., 15c, 25c.

(*) CARL S. CRANE, Box 525, Bellefontaine, O., will buy pair of twin air horns from old interurban car, or gas elec. train. State price.

JIM DAVIS, 524-1st Ave., N. W., Oelwein, Ia., wants CGW roster (steam); also to trade CGW pix for pix Midwestern rds.

RICHARD E. DITTMER, 16404 Sedalia Ave., Cleveland 11, O., wants *Trains* Nov. '40-Dec. '45. State price, cond.

(*) HOWARD DOBSON, 3300 W. 123rd St., Cleveland, O., offers 3¼x4¼ pix abdn. interurbans Cleve. S. Western, 5 for $1., set 8 for $1.50; North. Ohio Tract., 25c ea.; Lake Short Elec., set 3 for 35c; also 2¼x4 pix Cleve. Elyria & West., 15c ea.; Buff & Lake Erie, 15c ea.

BOB DOWLER, 1020 W. Jackson, Spokane 12, Wash., wants to corres. Milwaukee Road fans.

CHARLES E. DOYLE, 800 E. Court St., Beatrice, Neb., will swap superb 4x5 pix Mills Bros. rr circus, Big Bu ma getting bath with fire hose by Jack Hoxie, Star of the circus, and his wife, Bonnie Baker, for any clear pix p. c. any rr depot, bridge, wreck or negs.

WILLARD B. EGAN, 540 Sycamore Circle, San Bernardino, Calif., wants pix depot, cabooses, diamond-stack 0-4-0, 0-6-0, 4-4-0, 2-6-0, LS&MS 97, 4-4-0, Nickel Plate 11, 12, 13, 0-6-0; all 1880s and early 1890s.

(R) JOHN F. ENDLER, Jr., 23 Hughes St., Forty Fort, Pa., will trade New Haven trsfs. for any other city. Will sell few back issues *Railroad Magazine, Trains.*

J. HARRY FELDEN, Jr., 3345 Richmond St., Philadelphia 34, Pa., offers 75c ea. for *Model Railroader*, Feb., Mar., May, July, Oct., Dec. '36; Jan., Feb., May, Nov. '37; *Trains*, Nov., Dec. '42; has *Model Railroader, Trains* for sale.

(R) CHESTER FLOREA, 1944 Lexington Ave., Norwood 12, O., has *Railroad Magazines*, compl., fair cond., '39 to '47; 10 *N&W* emp. mags., latter parts of '30's, $16.50 p'us ry. exp.

Mrs. ESTELLE FRAMBACH, 4241 Monroe St., Los Angeles 27, Calif., has silver pass engraved with tr. in Toltec Gorge, dated 1890, formerly good on Denver & Rio Grande, Colo. Midland, UP, for sale.

MEARL GALLUP, 304 Walnut St., Woodland, Calif., wants emp. tts. SPdeM, T&NO, any shortline connec. with SP. Has *Model Builder, SP bulletins*, tr., ords., passes, some emp, tts, to trade.

(R*) A. C. GREENE, Jr., 6217 Belgrade Ave., Dallas 17, Tex., has '34 to '39 incl. *Railway Age*, almost compl. in good shape. Will trade for any year *Railroad Magazine, Elec. Ry. Journal, Trains* or southwest juice pix. Wants to hear from any "historical" juice and steam fans in Okla., Tex, or Southwest.

(R) J. A. GROW, 2055 N. Church St., Decatur, Ill., has back issues *Railroad Magazine;* is disposing of collect. South Pk. and Colo. Central, other Colo. rds. pix. negs., tts., tkts., passes, tr. ords., train registers, many other items, some prior to 1870; also Toledo, Wabash & Western calendar, compl., good cond., 1888, *Off. Guide* '11. List for stamped env.

W. L. HALL, Belfast & MooseHead Lake RR., Belfast, Me, will mail RPO covers on Belfast & Burnham RPO trs. 5, 6, both directions for collectors: B & ML the nation's only municipally owned completely Dieselized rr. No postage due letters accepted; comments will be apprec. on letters to Hall. All encls. should be stamped, addressed and stuffed.

(R) JOHN C. HANBACH, Box 103, Niagara Sq. Sta., Buffalo, N. Y., will sell *Railroad Magazines*, bus trsns., *Transit Journals*, '29 to date or will trade for trsfs.

T. M. HOWARD, 313 W. 33rd St., New York City, N. Y., offers Hamilton Railroad watch for sale; fine condition, make offer. *Nichols' Railroad Textbook*, $3. Has nothing else to sell, is not interested in buying any railroadiana.

LACEY JAMES, 1417 Springer St., Columbus, Ga., will sell 3x5 pix C. of Ga. *Big Apple* 4-8-4, 3x5 pix 2 ft. gage Ft. Benning French style 2-6-2-T., both for 25c.

E. G. JOHNSON, 2215 E. Bayley, Wichita 9, Kans., wants to sell *Trains* Jan., June, Sept. '44; Mar. '45-Feb. '46, 20c ea. plus post.

(*) CHARLES S. JONES, 2920 W. Master St., Philadelphia 21, Pa., has *The Transfer Collector* published monthly, news items of new transfer issues,

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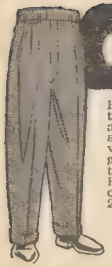

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transfer history, juicefan news, etc.; subscription $1.50 per yr. Sample copy for 3c stamp.

WILSON JONES, 23 W. 70th St., New York City 23, N. Y., buys neg., steam tr., eng. views only, size 616 or p. c., any rd., needs NKP, Erie.

F. G. KARL, 319 Niagara, Sheboygan, Wis., will buy or trade for p. c. negs. of C&NW 158, 1016, 1023, 1297, 1298, 1299, certain numbers Class M-1.

DAN KERELKO, 2214 W. Cermak Rd., Chicago 8, Ill., has Santa Fe emp. tts., emp, mags., tr. ords. Wants emp, tts. NP, Soo Line, DMIR divs., running west out of Duluth; also info. on abdn. Minneapolis, Red Lake & Manitoba Ry.

WM. A. KIRKPATRICK, 1406 S. Marion, Tulsa, Okla., will sell Vol. 7 *Trains*, unbound, excell. cond.; wants to buy vols. 1, 2, *Trains*, Beebe's *High Liners* and *Trains in Transition*.

H. M. KNIFFEN, 10 Chestnut St., East Port Chester, Conn., will buy negs. all types eqpmt. Aetna Oil, Agar Packing & Provision, Akron & Barberton Belt and Akron Canton & Youngstown.

C. K. KNUDSON, 6204 Cuyler, Chicago, Ill., has CTA trsf., 5 for $10.

FRED KOVAL, Jr., 1815 West 5th St., Dunellen, N. J., has small list 5x7, 8x10 pix for sale. List, contact pix, 10c with details.

PETER KUCHINSKY, 96 Arlington St., Chelsea 50, Mass., has B&M, Fitchberg Div. emp. tts., dated June 24, 1912 for best offer; consider trade.

(R) LEWIS LAWRENCE, Falkland, N. C., has *Railroad Magazine* Mar. '40 thru Dec. '43; 350 loco pix, 70 ACL negs.; 17 issues *Trains*, '40 to '43; about 100 other rail publications; tr. ords. Will sell compl. for best offer plus post.

JEAN M. LECHERC, 744 3rd Ave., Limoilou, Quebec, Canada, has pix size 116, 120 recently abdn. QRLP City Div. cars; size 116 CRLP interurban Div. Will trade pix for pix only. First 10 letters will receive copy of form 249 *Motorman Report of Defect in Car*, now collec. item.

ERNEST LEHMANN, Rt. 2, Box 138, Boyd, Minn., will sell size 116 pix Milw., C&NW, M&StL, RI, Omaha; size 620 pix Milw., M&StL, GN; 5x7, 8x10 enlargements all rds listed, 20c, 40c ea.; will trade for Milw., M&StL pix, negs., misc. RR items. List, sample, 10c.

(*) S. D. MAGUIRE, 802-10th Ave., Belmar, N. J., will sell old juice tts., guides, fan papers, etc. Has Atlantic City & Shore whistle, dest. sign and compl. roof bell weighing 60 lb. for sale to highest bidder.

E. L. MASENGILL, Box 64, Bulls Gap, Tenn., wants to trade engineer's caps with Southern Ry. insignia for same from far western rds. Write first.

HENRY MERCUR, 3020 Midvale Ave., Philadelphia 29, Pa., will sell 1928 to 1938, steam, elec. ry. tts., reasonably priced. Write for list.

ALDEN E. MILLER, 3212 34th Ave. South, Minneapolis 6, Minn., will sell C&NW, Omaha Rd. collec. pix, tts., timecards, passes, tr. ords., history vols., annual reports, system mags., folders, etc., back to 1850s. State your wants and bids. Wants Northwest RR. movies on 16 mm. film.

DAVID H. NOBLE, Box 1147, Lexington, Ky., offers copies Aug. '47 *Kentucky Engineer* featuring Ky's abdn. rrs. article, 25c ea., or trade for street map, your city, exc. N. Y.; wants Aug. '47 *Railroad Magazine*.

R. G. NUGENT, 241 Main St., Dansville, N. Y., wants emp. and pub. tts., Pa., N. Y., n. g., elec. rds. around oil fields, esp, around Olean, N. Y. and Bradford, Pa.; also pix, info, abdn. rds., that vicinity. Has few pix adbn. PS&N, Buffalo & Susq., other rds., N. Y., Pa.

(R) HENRY R. O'CONNOR, 1153 Guerrero St., San Francisco, Calif., will sell *Railroad Magazines* '33 to'47, none clipped, in first class cond.; buys clear negs., pix any far west rrs. under construction. Would corres. with any oldtime engineers of construction of past decade wanting to trade pix, past experience anywhere on globe.

ROBT. OZMENT, 108 N 11th St., Temple, Tex., can obtain size 117 pix any north or south bound trs. MKT, AT&SF which run south Ft. Worth.

GEO. PETROPULOS, 681 Lenora St., Pittsburgh 6, Pa., will buy or trade for negs. B&LE 4-4-0s, 4-6-0s, 2-6-0s, 2-8-0s numbered below 150; copied negs. accepted.

R. PHILLIPS, 1314-42 St., Brooklyn 19, N. Y., will sell leather-bound '37 *Car Builder's Cyclopedia*, excell. cond., scarce. Send offer.

(R) STAN RAFFEL, 3311 W. Garrison Ave., Baltimore 15, Md., will sell copies *Railroad Magazine*, *Trains*, many dates. Write for list. Wants BTC, PTC, Boston

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ARTHUR M. REIN, 341 East Broadway, Long Beach, N. Y., wants to sell collec., whole or part. *National Geographic Mag.*, incl, compl. issues, good con., 94 copies, yrs. '21 to '29. Make offer.

(*) VICTOR RICHMOND, 1547 - 28th Ave, San Francisco 22, Calif., can get pix SF transit sys., incl. cable lines, Key Sys. inter., any size, plain and color; p. c. for info., list.

RONNIE SCHOENBERG, 7442 W. Columbia, Chicago 31, Ill., would like to trade trsfs. for trsfs.

(R) JOE SENDERAK, 2619 W. Cortez St., Chicago 22, Ill., has *Railroad Magazines*, May, June, Dec.' 32; '33, exc. Feb., Oct.; '34, exc. June; '35, exc. June, Aug.; '36, exc. Jan., May, June; '37 thru '43; also *Trains, Locomotive Engineers Journal*. Write for list; all good cond., unclipped with covers.

(*) BERNARD H. SENNSTROM, 321 Hillcrest Ave., Woodridge, N. J., will buy issues *Marker* about Morris County Tr., Hudson River line, White Line & No. Jersey Rapid Transit; June '30 *Elec. Ry. Journal*.

(R) HARRY SHRIVER, Jr., 618 N. 10th St., Reading, Pa., wants *Railroad Magazine* Jan. '48, good cond.

(R) WARREN SMITH, 195 Holbrook Rd., North Quincy, Mass., wants Jan., Feb., Mar. '48 *Railroad Magazine;* has tts., diff. types RR. mags.; will trade or buy.

DONALD A. SOMERVILLE, 4018 Brunswick Ave., Drexel Hill, Pa., will sell or exchange steam pix of old-time and modern power. List and two 5x7 sample pix, 25c; or will swap for your list, any-size pix.

RENALDO PAYARES SUAREZ, Fernando de Layas 404, Vigia Camaguey, Cuba, wants to hear from railfan friends F. J. Bechtel, Paul M. Darnell, Theodore J. Sommer, J. Nicholson, others to renew contacts.

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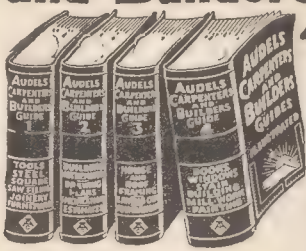

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DON R. TRYER, Eastern Oregon T. B. Hospital, The Dalles, Ore., due to continued and critical illness was unable to write 'thanks' to the many rails for their kindness in mailing him pix; from the unknown WP man at Portala, Calif., the engineer in Maine; a Green Board to them all.

(R) BOB VAN VALKENBURG, 132 Page N. E., Grand Rapids, Mich., wants Nov., Dec. '47 *Railroad Magazine*, unclipped and in good cond.

RAY VAN VOLKENBURG, 408 Park Ave., Herkimer, N. Y., will sell *Loco Cyclopedia*, '25 and '41; *Car Builders* '28 and '40; *Railroad Engineering and Maintenance Cyclopedia* '39; good as new, $5. ea., parcel post collect; *Railway Age Gazette* vol. 54, $2, 1913.

GENERAL R. VAUGHN, Rt. 2, Simpsonville, S. C., wants to buy or trade adv. novelty pencils, esp. rr.

(R) E. P. VERDONCK, 8 Nelnar Ave., St. Augustine, Fla., will sell *Railroad Magazine*, Dec. '29 to date, prefers compl. sale; also four loco pix albums, over 2100 pix; three trolley pix albums, over 1300 pix. Make offers; 5c for details.

EDWARD H. WEBER III, 8 Garden Ave., Chatham, N. J., has DL&W tr. ords., clearances, messages, register tkts.; clearance for use in cab signal terr. 3c; tr. crew assignments, notices and instructive bulletins, 5c; red bulletins, safety dope sheet, 10c; all recent date. Wants old N. J. tts.

ROBT. E. WHITE, 249 Orchard St., Saranac, Mich., wants good neg. loco from countries in Asia, India, Central and South America; also Bulgaria. Will buy or trade.

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R. BERRY, Seaside, Ore., has 00-2 rail items, good cond.; wants Lionel O gage in trade or will sell. Scale craft bag, coach, diner, Pull. obser., 7 new frt.

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kits, roller bearing pass. trucks, tender trucks, Lionel Hudson loco, other items. List, prices for stamp.

CECIL CHURCH, 241 West C St., Newton, N. C., has three 0-gage frt. cars for sale; also one code machine for learning wire Morse with sounder.

CHARLES DAVIS, 6527 S. Aberdeen St., Chicago 21, Ill., will trade Scalecraft 00 gage 4-6-2 P13 loco, 2-rail, all bronze, excell. detail and operation for a 2-rail 00-gage 4-8-4 or 2-8-0.

PETE ELLIS, Cascade, Mont., has 1432 W Lionel fr. with whistle, slightly used but perf. cond. Will trade for Strone Gold Crown Diesel model airplane eng. and Ohlsson 80 Special model airplane eng.

K. FRASER, Cookshire, Quebec, Canada, wants used 0 gage Lionel switchers, good cond.

Mrs. G. GRASMANN, 150-11 88th Ave., Jamaica 2, N. Y., has HO gage eqpmt., I converted AF Hudson-type loco, I freelance 0-8-0, gas elec. car, A & B Unit Diesel, streamline 80 ft. coach, 3 streamline coaches, 3 Walther's cars, baggage, mail, comb. baggage, coach, 70 ft. coach, many other items.

L. GRIER, 123 Morningside Dr., Elmira, N. Y., offers 28 albums of Victor Red Seal and Columbia Masterworks records, also cash, for 0 gage model, eqpmt., wire recorder.

R. P. IRWIN, 121 Young Ave., Croton-on-Hudson, N. Y., has std.-gage Lionel 9 E. loco, 2 cattle cars, gon, lumber, searchlight car, caboose, type R transf., 24 tracks, crossover, good cond., $35.

ROBT. C. JONES, 40 Richard St., Richford, Vt., offers HO, AF Hudson, 1 Varney Commemorative Series De Luxe boxcar kit, both new to highest bid over $25.

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RALPH M. PERRY, 48 S. Main St., Brattleboro, Vt., has surplus ¼ in. scale eqpmt. to sell or trade. List for stamp.

FRED SCHORR, 613 W. Diamond Ave., Hazleton, Pa., will sell considerable 00 gage 2-rail, elec. eqpmt.; also '47 Lionel tr. set, with extra track.

JAMES SPANGLER, 1344 E. 143, East Cleveland 12, O., will sell new Mantua Mogul, ready to run, $30.

C. R. WILLIAMS, 18 Ennismore Rd., Liverpool 23, Eng., wishes to corres. with Amer. model railroader.

ARTHUR WOOD, 197 Lincoln Ave., Brooklyn 8, N. Y., wants AF locos, cars, any cond., 3/16 gage. Send list.

WILLIAM WRIGHT, Sr., 26 E. 20th St., Paterson 3, N. J., wants to buy ⅜ or ½ in. gage trolley eqpmt., incl. motor trucks, rail.

DICK YOUNG, 1220 S. Sycamore, Los Angeles 35, Calif., has a bike in good cond. to trade for HO train and eqpmt.

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